

Reports and Financial Statements 2019



UNIVERSITY OF
CAMBRIDGE

Completion of an £11m building project created new spaces for exhibitions, education and research at Kettle's Yard. The Museum explores ways of contributing further to the mission of the University, teaching and research in particular.



Reports and Financial Statements 2019

| | |
|--------------------------------------------------|----|
| A brief overview | 4 |
| Financial review | 8 |
| Corporate governance | 25 |
| Members of the Council | 27 |
| Statement of internal control | 28 |
| Statement of the responsibilities of the Council | 29 |
| Independent auditors' report to the Council | 30 |
| Statements of comprehensive income | 36 |
| Statements of changes in reserves | 37 |
| Balance sheets | 38 |
| Consolidated statement of cash flows | 39 |
| Notes to the accounts | 40 |
| Appendix 1 | 84 |

A brief overview

Introduction

This overview provides some highlights of University Group activities during 2018-19.

Vice-Chancellor's foreword



"Universities are increasingly complex institutions operating in an increasingly complex and regulated environment. We must redouble our efforts in championing our universities, and telling the compelling stories that will persuade our governments and societies of their relevance and enduring value. We must acknowledge the rise of public discontent and look to reaffirm and demonstrate that society's aspirations are closely connected to our own. We must improve the ways we engage and communicate what we do, how we do it and why. We must widen access and participation further, welcoming talent wherever it is from and delivering an outstanding student experience. We must show how we contribute locally, regionally and nationally, where our world-leading research fuels discovery and economic growth, human health and social cohesion.

Collectively, we must prove why our institutions deserve to be cherished rather than chastised."

Professor Stephen Toope
Vice-Chancellor

Financial highlights for the year ended 31 July 2019

The University's audited financial statements for the year ended 31 July 2019 are included after this overview and will be published in the Cambridge University Reporter in December 2019. The following analyses, extracted from those financial statements and the accompanying financial review, summarise the University's sources of income and the factors affecting net assets.

Group income £2,192m (2018: £1,965m) – year ended 31 July 2019



| | | |
|-------------------------------------|---------|---|
| Funding body grants | £181.9m | ● |
| Academic fees and support grants | £320.2m | ● |
| Research grants and contracts | £592.4m | ● |
| Examination and assessment services | £478.5m | ● |
| Publishing services | £334.0m | ● |
| Other income | £133.4m | ● |
| Endowment and investment income | £151.6m | ● |

Group net assets at 31 July 2019: £5,145m

The Group's net assets totalled £5,145m as at 31 July 2019 (2018: £5,238m). The decrease in net assets largely relates to increased pension liabilities resulting from significant actuarial losses on the Group's contributory pension schemes and changes in the USS deficit funding levels, partly offset by increases in the value of investments and expenditure on fixed assets.

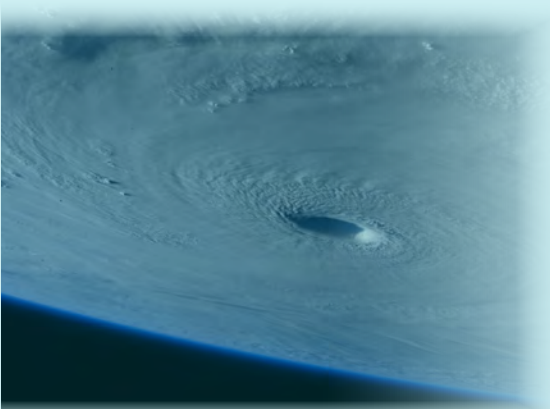
Cambridge Assessment

Our UK exam board OCR successfully adapted to government reforms, smoothly delivering a new suite of more than 100 accredited GCSE, AS, A Level and vocational qualifications. Our Cambridge Nationals suite of vocational qualifications were taken by over 73,000 students in 2019, up 62% on 2018. Our researchers' work investigating a fair method of delivering the new grade 9 to top-performing students was adopted by the regulator, with this year being the first all OCR's reformed GCSEs, graded on the new, numerical scale were sat by students. In support of this, over 5,000 teachers received some sort of training from OCR last year, ranging from practical ideas on how to teach the qualifications, through to a deeper understanding of assessment.



Avert environmental catastrophe with the help of AI

Cambridge has established a new Centre for Doctoral Training to develop artificial intelligence techniques to help address some of the biggest threats facing the planet. Climate risk, environmental change and environmental hazards pose some of the most significant threats we face in the 21st century. At the same time, we have increasingly larger datasets available to observe the planet, from the atomic scale all the way through to global satellite observations. The Centre brings computer scientists, mathematicians and engineers together with environmental and geoscientists to train the next generation of thought leaders in environmental data science. They will be equipped to apply AI to ever-increasing environmental data and understand and address the risks we face.



Cambridge University Press

How can we prepare students for the challenges of a world where the ability to analyse clearly, communicate well and work collaboratively is ever more important? Increasingly, educators expect students to acquire such competencies in the classroom along with subject knowledge. Cambridge University Press has devised a framework – Cambridge Framework for Life Competencies – to help incorporate these abilities systematically into English language programmes. These 'life competencies' bring together three elements: the acquisition of knowledge, skills and the mental attitude a student needs to learn successfully. Competencies are grouped into six main areas: creative thinking; critical thinking; learning to learn; communication; collaboration; and social responsibilities. The Press is now working to integrate them into the design of its English Language Teaching materials and courses, from primary level to adult. It is also helping teachers understand them better, build them into their teaching and monitor students' progress.



Personalised approach to treating inflammatory bowel disease

Researchers at the Department of Medicine and Cambridge University Hospitals NHS Trust have developed a new test that can reliably predict the future course of inflammatory bowel disease in individuals, transforming treatments for patients and paving the way for a personalised approach. The team had previously showed that a genetic signature found in a certain type of immune cell known as a CD8 T-cell could be used to assign patients to one of two groups depending on whether their condition was likely to be mild or severe. Now, they have shown that it is possible to develop a useful, scalable test by looking at whole blood samples in conjunction with CD8 T-cells and using widely-available technology. The test is being developed by PredictImmune, a spinout company supported by Cambridge Enterprise. The team is involved in a £4.2 million trial to see whether using the biomarker to guide treatment at the time of diagnosis can lead to better outcomes for patients.



Sir Greg Winter wins the 2018 Nobel Prize in Chemistry

Sir Greg Winter, alumnus and Master of Trinity College (2012-19), was jointly awarded the 2018 Nobel Prize in Chemistry. The award was made for his pioneering work in using phage display for the directed evolution of antibodies, with the aim of producing new pharmaceuticals. The first pharmaceutical based on this method, adalimumab, was approved in 2002 and is used for rheumatoid arthritis, psoriasis and inflammatory bowel diseases. Since then, phage display has produced antibodies that can neutralise toxins, counteract autoimmune diseases and cure metastatic cancer. Sir Greg is a genetic engineer and is best known for his research and inventions relating to humanised and human therapeutic antibodies. His research career has been based almost entirely in Cambridge at the Medical Research Council's Laboratory of Molecular Biology and the Centre for Protein Engineering, and during this time he also founded three biotech companies based on his inventions: Cambridge Antibody Technology (acquired by AstraZeneca), Domantis (acquired by GlaxoSmithKline) and Bicycle Therapeutics.



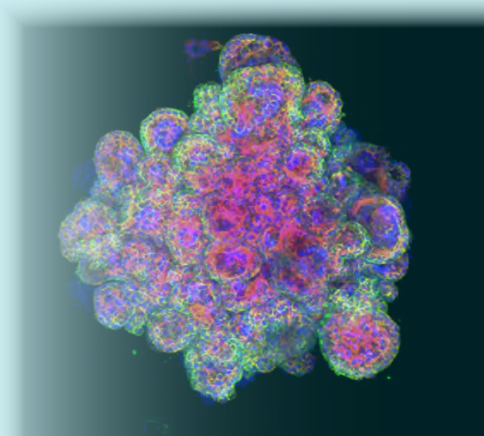
Wooden skyscrapers could provide a greener alternative to concrete

Recent innovations in engineered timber have laid the foundations for the world's first wooden skyscrapers to appear within a decade, a feat that is not only achievable, according to the Centre for Natural Material Innovation, but one they hope will beckon in an era of sustainable wooden cities. The team based at the Faculty of Architecture includes architects, biochemists, chemists, mathematicians and engineers, who specialise in plant-based material, including cross-laminated timber, arguably the first major structural innovation since the advent of reinforced concrete 150 years ago. Concrete is five times heavier than timber, which means more expense for foundations and transport. It is also resource-intensive, and contributes to tremendous carbon dioxide emissions. The team is researching using plant-based materials as a greener alternative, with buildings sown like seeds and cities harvested as crops, a way of simultaneously addressing climate change and global housing shortages.



'Mini-placentas' could provide a model for early pregnancy

Researchers have developed 'mini-placentas' – a cellular model of the early stages of the placenta – that could provide a window into early pregnancy and help transform our understanding of reproductive disorders. Many pregnancies fail because the embryo does not implant correctly into the lining of the uterus and fails to form a placental attachment to the mother, but we understand little about what normally happens and what can go wrong. In the past few years, a new field of research has blossomed that uses organoids – 'mini-organs' – to study human biology and disease. At Cambridge, one of the world leaders in organoid research, scientists are growing everything from 'mini-brains' to 'mini-livers' to 'mini-lungs'. A team at the Centre for Trophoblast Research has now grown organoids using cells taken from placental tissue. These organoids so closely model the early placenta that they are able to record a positive response on an over-the-counter pregnancy test.



© Dr. M.Y.Turco (Centre for Trophoblast Research)

Almost one in five police officers suffers with a form of PTSD

Close to one in five police officers and staff in the UK have symptoms consistent with either post-traumatic stress disorder or what's known as "complex PTSD" – yet over two-thirds of those suffering are unaware. This is according to early findings from the largest force-wide survey yet undertaken, which focused on police wellbeing and screened for clinical symptoms of both disorders. The research has been conducted by a team of Cambridge sociologists, funded by the charity Police Care UK. The researchers say that overall PTSD rates in law enforcement are almost five times higher than general UK population levels, last estimated at 4.4% in 2014. Less than a third of those who showed signs of either disorder had been informed and understood this to be the case.



A photograph of a modern university building interior. The scene is dominated by a mezzanine level with a glass railing, overlooking a ground floor with large glass doors. The lighting is bright and even, highlighting the architectural details and the clean, professional environment. The text is overlaid on the upper right portion of the image.

“With the opening of the University’s new Student Services Centre, our students can now access support and advice on a range of issues at a single location in the centre of Cambridge, where staff can offer a much more integrated service. Good student support underpins academic success and a great student experience - and the University is committed to providing an equally positive experience to all.”

Alice Benton, Head of Education Services

Financial review

Scope of the financial statements

The consolidated financial statements provide **an overview of the finances and operations of the University Group** (the 'Group') covering:

- the teaching and research activities of the University and its subsidiary companies that undertake activities which, for legal or commercial reasons, are more appropriately carried out by limited companies
- **Cambridge Assessment (CA)** and its subsidiary undertakings (including associates and joint ventures)
- **Cambridge University Press (CUP)** and its subsidiary companies and joint ventures, and
- Gates Cambridge Trust and certain other Trusts (**the 'Associated Trusts'**).

The financial statements should be read in conjunction with the Annual Report of the Council and the Annual Report of the General Board to the Council for the 2018-19 academic year. References to the **University** reflect the teaching and research activities of the University (excluding subsidiary companies and Associated Trusts), together with CA and CUP (but excluding their subsidiary companies, joint ventures and associates). References to the **Group** reflect the teaching and research activities of the University together with CA and CUP, including all subsidiary companies, Associated Trusts, joint ventures and associates (see Note 35).

The financial position of the core teaching and research activities of the University (the 'Academic

University') may be seen more clearly in the Financial Management Information published in the *Cambridge University Reporter*. Further detailed information about the finances and operations of CA and CUP is given in the published annual reports of those entities. CA and CUP are constituent parts of the corporation known as the Chancellor, Masters and Scholars of the University of Cambridge. CA's primary work is the conduct and administration of examinations in schools and for persons who are not members of the University. CUP is the University's publishing house, dedicated to publishing for the advancement of learning, knowledge and research worldwide.

The Associated Trusts are separately constituted charities. They are deemed to be subsidiary undertakings of the University since the University appoints the majority of the trustees for each Trust. The purpose of these Trusts is to support the University by enabling persons from both within and outside the United Kingdom to benefit from education at the University through the provision of scholarships and grants.

Public benefit

The University is an exempt charity subject to regulation, with effect from 1 April 2018, by the Office for Students under the Higher Education and Research Act 2017.

The University reports annually on the ways in which it has delivered charitable purposes for the public benefit. Highlights of its activities over the past year are included in the **Brief Overview for the year ended 31 July 2019**.

The Council, in reviewing the

University's activities in this regard, has taken into account the Charity Commission's guidance on public benefit. The Council is satisfied that the activities of the University as described in these Reports and Financial Statements, the Brief Overview and in the Annual Report of the Council, fully meet the public benefit requirements.

The mission of the University

The mission of the University is 'to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence'. The University makes a significant contribution, through these activities, to the advancement of education, research and dissemination of knowledge.

Financial results for the year

The results for the Group for the year ended 31 July 2019 are summarised in Table 1:

| | 2018-19 £m | 2017-18 £m | Change % |
|----------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|
| Income | 2,192 | 1,965 | 12% |
| Expenditure* | (2,308) | (1,911) | 21% |
| Surplus / (deficit) before other gains and losses and share of surplus of joint ventures and associates | (116) | 54 | (315)% |
| Gain on investments | 235 | 219 | |
| Share of surplus of joint ventures and associates | 2 | – | |
| Taxation | (4) | (3) | |
| Surplus for the year | 117 | 270 | (57)% |
| Actuarial gain / (loss) | (208) | 122 | |
| Profit on acquisition of Foundation** | – | 2 | |
| Loss on deconsolidation of Trust** | (2) | – | |
| Gain / (loss) on foreign currency translation | 2 | (3) | |
| Total comprehensive income / (expense) for the year | (91) | 391 | (123)% |
| <i>Adjusted operating surplus / (deficit) for the year***</i> | 16 | (21) | 176% |

*Includes the adverse impact of the change in USS deficit recovery funding of £230.7m related to the 2017 valuation

**See Note 35 to the Accounts

*** See Appendix 1 to the Accounts

The **Group's financial position remains strong** but at a time of prolonged and unprecedented uncertainties, declining public investment and rising costs, the prioritisation and prudent management of costs, improvement of operating efficiencies and identification of new revenue streams remain priorities. Our key challenges remain: the ongoing changes to government policy impacting student fees; the affordability of local housing, making it increasingly difficult to recruit and retain the best staff and students; risks arising from the prolonged Brexit uncertainties; and significant pressures on pay and pension costs.

The underlying 2018-19 **financial operating performance was satisfactory**. Management regards the most representative measure of underlying performance to be the **adjusted operating surplus** for the year of £16.1m reflected in Appendix 1 to the Accounts. This revises the reported surplus for the year for unrealised fair value adjustments,

the accounting provision for the USS scheme deficit (below), capital grants and significant one-off endowments (which are to be used over an extended period), in order to provide a measure of recurrent operating surplus / deficit.

An adjustment of particular note this year is the £230.7m non-cash charge to staff costs, reflecting the increased accounting provision for the USS scheme deficit (Note 28 to the Accounts). The calculation of the liability for the obligation to fund the USS deficit uses a HEI-sector-standard model and reflects the Schedule of Contributions put in place in January 2019 following the finalisation of the 2017 valuation, as updated for current discount rate assumptions. Post the balance sheet date, agreement has been reached on the UUK-proposed 2018 valuation which will result in a substantial reduction in the new deficit contributions. Whilst the 2018 valuation is not deemed an 'adjusting' event for the 2018-19 annual accounts the impact of this

valuation if it were disclosed in this year's accounts is outlined in detail in Note 28.

Total income **continues to grow year on year** with an increase of 12% compared to 2017-18. At the same time, total donations raised to date by the *Dear World, Yours Cambridge* campaign has reached £1.6bn. The Cambridge University Endowment Fund (CUF) delivered another year of stable performance achieving a return of 4.7% for the year ended 30 June 2019 in a challenging market, characterised by high asset valuations. The University was delighted to announce, post year-end, the successful appointment of its new Chief Investment Officer, Ms Tilly Franklin.

Investment by the University in its capital infrastructure continued during 2018-19 at a slowing pace, with £215.3m invested in fixed assets, software and investment property over the period.

Reported surplus for the year

The statement of comprehensive income reflects a **surplus for the year** of £117.3m (2017-18: £269.6m). This includes a high proportion of income competitively won each year for teaching and research activities (requiring cross-subsidisation from other activities), donations for permanent endowment / capital purposes, contributions from CA and CUP trading activities (used by the University towards capital expenditure in the academic estate), unrealised gains on investments and, for the first time, a £51.5m fair value adjustment (through finance costs) on revaluation of the CPI-linked bond. The surplus is £152.3m lower than last year, primarily reflecting the £230.7m charge to staff costs for the increased accounting provision for the USS scheme deficit based on the 2017 valuation modeller (see Note 13 to the Accounts). Other factors contributing to the surplus for the year include the growth in revenue-generating activities and new endowments for funding key posts and scholarships, partially offset by increased staff costs. In 2018-19 total gains on investments, included in the surplus for the year above, were

£235.1m (2017-18: £219.0m). The value of invested assets is inherently volatile and this figure will fluctuate significantly year on year. In addition to the revaluation of the University's investments in the CUEF, total gains on investments include unrealised revaluation gains and losses in respect of the University's growing investment property portfolio (see Note 21 to the Accounts), which have generated a net revaluation gain of £53.1m for the year.

Total comprehensive income for the year

The Group incurred a **total comprehensive expense** for the year of £(90.9)m (2017-18: £390.8m), adversely impacted by the increase in the USS deficit recovery charge of £(230.7)m, the actuarial loss on other pension scheme liabilities of £(208.2)m, a finance charge associated with the revaluation of the CPI-linked bond of £(51.5)m (required to be re-measured to fair value at each consecutive reporting date, see Note 27) and the loss on deconsolidation of the Malaysian Commonwealth Studies Centre in Cambridge ('Malaysia Trust') of £(1.9)m partly offset by gains on foreign currency translation of

overseas subsidiary undertakings of £1.9m. On 1 August 2018 the University ceased to be Trustee of the Malaysia Trust and has subsequently deconsolidated its net assets from these financial statements. As nil consideration was received for these net assets the resultant loss has been recognised through the statement of comprehensive income.

The unrealised gains or losses on investments, fair value adjustment of the CPI-linked bond, and actuarial gains and losses on pension schemes will all continue to fluctuate from year to year over time. These effects are demonstrated in the historical trend data (see Appendix 1 to the Accounts). The University considers the best measure of underlying recurrent operating performance to be the **adjusted operating surplus for the year**, being the surplus for the year adjusted for the gain on investments, CPI-linked bond fair value adjustment, change in USS pension deficit recovery provision, and before capital grants and significant one-off endowments. The adjusted operating surplus remains finely balanced, with a deficit on core teaching and research activities offset in the consolidated accounts by surpluses from CA and CUP trading activities. The Academic University's operating cash flows are also supported by the element of CUEF distributions funded from long-term capital growth.

Segmental analysis

The consolidated position comprises three main segments: (i) core academic activities, Trusts and subsidiary activities of the University; (ii) the assessment activities carried out by CA; and (iii) the publishing activities carried out by CUP. Within the Group there are a number of intra-group transactions, principally the financial and other support from CA and CUP for the University's academic activities. Table 2 gives segmental information, which is considered in further detail in Note 17 to the Accounts.



Table 2

| | Total income 2019 £m | Expenditure 2019 £m | Share of operating surplus in joint ventures and associates 2019 £m | Investment gains 2019 £m | Tax 2019 £m | Surplus for the year 2019 £m |
|---------------------------------------------------------------------|-------------------------------|---------------------------|---------------------------------------------------------------------------------------|-----------------------------------|-------------------|------------------------------------------|
| HEI, Trusts and others | 1,423 | (1,599) | – | 219 | – | 43 |
| Cambridge Assessment | 487 | (450) | 2 | 14 | (1) | 52 |
| Cambridge University Press | 342 | (319) | – | 2 | (3) | 22 |
| | 2,252 | (2,368) | 2 | 235 | (4) | 117 |
| Financial support to the University from Cambridge Assessment | (29) | 29 | – | – | – | – |
| Transfer of assets from Cambridge Assessment to the University | (23) | 23 | – | – | – | – |
| Financial support to the University from Cambridge University Press | (8) | 8 | – | – | – | – |
| As per the reported financial statements | 2,192 | (2,308) | 2 | 235 | (4) | 117 |

Adjustment to reflect the element of Cambridge University Endowment Fund distributions funded out of long-term capital growth

| | | | | | | |
|--------------------------------------|--------------|----------------|----------|-------------|------------|------------|
| HEI, Trusts and others | 81 | – | – | (81) | – | – |
| Cambridge Assessment | 8 | – | – | (8) | – | – |
| Cambridge University Press | 1 | – | – | (1) | – | – |
| To restate onto a distribution basis | 90 | – | – | (90) | – | – |
| Adjusted distribution basis | 2,282 | (2,308) | 2 | 145 | (4) | 117 |

| | Total income 2018 £m | Expenditure 2018 £m | Share of operating surplus in joint ventures and associates 2018 £m | Investment gains 2018 £m | Tax 2018 £m | Surplus for the year 2018 £m |
|---------------------------------------------------------------------|-------------------------------|---------------------------|---------------------------------------------------------------------------------------|-----------------------------------|-------------------|------------------------------------------|
| HEI, Trusts and others | 1,259 | (1,245) | – | 194 | (1) | 207 |
| Cambridge Assessment | 442 | (411) | – | 21 | (1) | 51 |
| Cambridge University Press | 319 | (309) | – | 4 | (1) | 13 |
| | 2,020 | (1,965) | – | 219 | (3) | 271 |
| Financial support to the University from Cambridge Assessment | (26) | 26 | – | – | – | – |
| Transfer of assets from Cambridge Assessment to the University | (24) | 24 | – | – | – | – |
| Financial support to the University from Cambridge University Press | (5) | 4 | – | – | – | (1) |
| As per the reported financial statements | 1,965 | (1,911) | – | 219 | (3) | 270 |

Adjustment to reflect the element of Cambridge University Endowment Fund distributions funded out of long-term capital growth

| | | | | | | |
|--------------------------------------|--------------|----------------|----------|-------------|------------|------------|
| HEI, Trusts and others | 71 | – | – | (71) | – | – |
| Cambridge Assessment | 7 | – | – | (7) | – | – |
| Cambridge University Press | 1 | – | – | (1) | – | – |
| To restate onto a distribution basis | 79 | – | – | (79) | – | – |
| Adjusted distribution basis | 2,044 | (1,911) | – | 140 | (3) | 270 |

Income

The Group's income increased by £227.2m (up 12%) from £1,964.8m to £2,192.0m. The Group has **growing, diversified sources of revenue providing operational stability and resilience** with a compound growth of 7.5% since 2012. Apart from other income each category of income grew in 2018-19:

- Sponsors of research projects continue to be the single largest source of income for the University. Research grants and contracts activity increased revenues by some 13% to £592.4m compared to 2017-18 levels. The areas of most growth include funding from Research Councils which increased by 24% to £216.6m, funding from other non-EU and non-UK bodies which increased by 18% to £84.2m and UK-based charity funded research income which increased by 5% to £160.6m.
- Combined revenues from CA and CUP represent the next largest source of Group income, and in aggregate totalled £812.5m (2017-18: £745.5m) which amounts to 37% of total revenues for the year.
- Tuition fees and education contracts totalled £320.2m, up by 9%, principally due to an increase in student numbers and increases in non-regulated fee rates. It should be noted that the practical consequences of responding to the published recommendations of the Augar review panel's report on post-18 education are yet to be determined.
- Funding body grants from the Higher Education Funding Council for England (HEFCE) and latterly from the Office for Students (OfS) increased by 5% to £181.9m. Funding from teaching grants and museum grants was broadly held at 2017-18 levels. Research and other revenue funding grants showed a 4% increase with capital grant funding generating the highest increase (up 13%).
- Other income of £133.4m decreased by 6%, mainly as a result of gains on the disposal of fixed assets and the receipt of research tax credits recognised in 2017-18. In addition, the change in presentational format to reclassify operating surpluses associated with joint ventures and associates from other operating income to a separate disclosure in the statement of comprehensive income has also contributed to the year-on-year reduction.
- Donations and endowments received were £111.4m, (2017-18: £63.8m).
- Investment income is an important component of the University's funding mix. Provided by the Group's financial investments, in particular the CUEF and substantial equity realisations generated this year by certain seedcorn investments held through the University's subsidiary, Cambridge Enterprise Limited, investment income grew from £19.8m to £40.2m. The CUEF's distribution (available for spending on operations) exceeded the income received in the year from its underlying investments by £90.3m. On a 'distribution basis', investment income was £130.5m.

Examination and assessment services are carried out by CA through its three exam boards: [Cambridge Assessment English](#), [Cambridge Assessment International Education](#), and [Oxford Cambridge and RSA Examinations \(OCR\)](#). CA's international businesses now account for some 64% of income. **Total examination and assessment income in the year to 31 July 2019 increased** by 11% to £478.5m.

Overall Publishing income from publishing services in the period rose by 7% to £334.0m. Publishing service revenue incorporates CUP's income from the sales of educational and scholarly books, e-books, journals, applications

The Group has growing, diversified sources of revenue providing operational stability and resilience

and related services through its three publishing groups: Academic (research books, advanced learning materials and reference content as well as journals); Cambridge English Language Teaching (materials for both adults and students); and Education (teaching materials for schools and advice on educational reform). Around 90% of CUP sales arise outside the United Kingdom.

During the year the University acquired the employees and trading assets of the Centre for Evaluation and Monitoring (CEM), a former department of the University of Durham, for a cash consideration of £17.8m. This is treated as a jointly-controlled operation, with CA and CUP each consolidating a 50% share.

Construction began in early 2019 on the new Cavendish Laboratory, a purpose-built centre for the University's world-leading physics research.



Research

The Group's 2018-19 **research income increased to £592.4m** from £524.9m in the previous year, with the single largest contribution being received through Research Councils' grants of £216.6m. Research income from sources other than UK Research Councils was £375.8m. Of this, £160.6m came from UK-based charities, £145.0m from overseas and EU sources and £70.2m from other UK sources. These figures recognise further tranches of a major research donation from the estate of Ray Dolby, in support of the new Cavendish III facilities, where construction is well underway.

The University receives recurrent funding from the UK government in the form of grants for teaching, research and other activities. With effect from 1 April 2018, this function has been undertaken by UK Research and Innovation (UKRI). In 2018-19, the University was also allocated £128.3m of Quality-Related (QR) funding, representing 7.2% of the overall grant award for England.

Donations

The University receives benefactions and donations from a variety of sources including trusts and foundations, corporations and individuals (both alumni and non-alumni). The total given for donations and endowment income recognises all new endowments, donations for capital in respect of heritage assets, and other restricted and unrestricted donations available for current spend.

During the year, the University announced an unprecedented £100m gift from the David and Claudia Harding Foundation to help attract the most talented postgraduate and undergraduate students from the UK and around the world. It will propel Cambridge's ambitious fundraising drive to increase the financial and wider support for students at the University as well as the collegiate University, helping to sustain



David and Claudia Harding

Cambridge's place among the world's leading universities through attracting, support and funding the most talented students from all parts of the UK and the world, whatever their background or means. Some £41m of this donation was received by the University in 2018-19.

In aggregate over the period ended 31 July 2019, donations and endowment income totalled £111.4m (2017-18: £63.8m) of which approximately £1m (2017-18: £10m) was of a capital nature (i.e. donations for fixed assets and heritage assets).

The Academic University continues to see increasing benefits from the dedicated team of development professionals, working in alignment with the University's priorities in raising endowment and investing in cutting-edge research, scholarships and facilities. The run rate for philanthropic donations to the collegiate University has now reached an average of £271m p.a.

The £100m gift from the David and Claudia Harding Foundation will help to attract the most talented students from the UK and around the world

and the £2bn **Dear World Yours Cambridge** campaign has now **delivered £1.6bn in commitments**. For the second consecutive year the collegiate University has surpassed £300m in new funds raised. Looking at international competitors' philanthropy programmes, the University remains positive about the further potential to grow donations, with enhanced alignment to academic priorities.

The Group receives and generates significant other income including: property rentals, contributions from

health and hospital authorities, residences and catering, and income from intellectual property managed primarily through Cambridge Enterprise Limited. Total other income decreased by 6% to £133.4m (2017-18: £142.1m) as noted above.

Investment income

The [Cambridge University Endowment Fund \(CUEF\)](#) is an investment vehicle which enables the University to pool assets held on trust and invest them for the very long term, gaining from scale, diversification and professional management. The CUEF is managed by Cambridge Investment Management Limited under investment and distribution policies set by the Council on the advice of its Investment Board. The CUEF is open to the University and to the Colleges and charitable trusts associated with the University. At 31 July 2019, there were 16 College investors. The CUEF aims to preserve and grow the value of the perpetuity capital of its investors, while providing a sustainable income stream. The University has adjusted its long-term investment objective to generate an average 5.0% return over the Consumer Price Index (CPI), while judiciously managing the risk taken by utilising diversification in investment strategies, asset classes and managers. The distribution policy is based on underlying capital values, ensuring the distribution is directly linked to the performance of the Fund without depleting capital originally invested. At 31 July 2019, the net asset value of the CUEF was £3,456m. On a 'distribution basis', 2018-19 investment income to the University was £130.5m.

The CUEF reports its performance to 30 June 2019. During the year ended 30 June 2019, the CUEF had an investment return of 4.7% (2017-18: 8.8%). **The Fund has returned an annualised 10.45% return over a rolling five-year period.** This exceeds the long-term investment objective over this period of 7.84% annualised. The value of the CUEF at 30 June 2019 was £3,401m

(2017-18: £3,193m) of which £3,020m (2017-18: £2,786m) is attributable to the University.

Public equities comprise 59% of the CUEF as at 30 June 2019 and have been the main driver of returns in both the long and short term. Investments in private equity have also begun to make a significant impact and are likely to be increased in the future, mindful of investor liquidity requirements. Credit exposure has evolved over time and will continue to do so as opportunities arise.

The asset allocation and investment selection in the Fund is aimed at optimising the expected long-run total return, bearing in mind expected future volatility. The CUEF's asset allocation at 30 June 2019 is shown below. Over the course of 2018-19, allocations to these broad asset classes did not change significantly.

| | |
|------------------------|-----|
| Public equity | 59% |
| Private investment | 12% |
| Credit strategies | 5% |
| Absolute returns | 8% |
| Real assets | 9% |
| Fixed interests / Cash | 7% |

Other investment assets generated investment income of £25.5m during 2018-19. Some long-term investments are held outside the CUEF. These include certain investment properties in Cambridge, other securities, and equity investments in spin-out companies overseen by the University's technology transfer company [Cambridge Enterprise Limited](#) and through its holding in [Cambridge Innovation Capital](#).

The majority of the University and Group's current asset investments are invested in the deposit pool. This pool is managed by the Finance Division according to guidelines on diversification, exposure, and credit quality as agreed by the Finance Committee. The investments are principally short-term deposits with banks and similar institutions.

Expenditure

The Group's total expenditure in 2018-19 of £2,307.5m is £396.4m (21%) higher than in the prior year, primarily reflecting increased staff costs across both research and other activities. Expenditure comprises: staff costs (including research) at 49%; other operating expenses at 42%; depreciation at 5%; and interest and other finance costs at 4%. The main changes compared to 2017-18 levels reflect the following:

- Staff costs increased by 34% to £1,135.0m. The average number of staff rose by 4% to 17,083, with increases in pay and University Superannuation Scheme (USS) pension service costs and the charge made for the increase in the calculated deficit liability (Note 13 to the Accounts).
- Other operating expenses increased by 4% to £969.6m, including higher grant-funded research costs.
- Depreciation increased from £94.4m in 2017-18 to £111.7m as a result of significant fixed asset additions during the year and project write-off costs.
- Interest payments rose from £33.6m in 2017-18 to £91.2m (up 172%). Whilst financing costs of pension and retirement benefits account for £17.3m of the total, a significant element of the increase is driven by fair value adjustments related to (1) the CPI-linked bond which resulted in a financing charge of £51.5m in the period and (2) euro and dollar denominated forward exchange contracts which resulted in a financing charge of £1.2m. Further year-on-year increases reflect the first full-year interest on the University's 2018 fixed interest bond liability (up £6.4m).
- The ongoing annual interest charges associated with all of the University's bond liabilities is estimated at £21m p.a., although this will be impacted by changes in the Consumer Price Index as the CPI-linked bond is fair valued at each balance sheet date (see Note 15 to the Accounts).



Work on Phase 1 of the University's development at Eddington is now complete.

Cash flow and financing

After adjusting for non-cash charges such as depreciation and amortisation, **the underlying net cash inflows from operating activities** of £124.4m increased ahead of the associated surplus reflected in the statement of comprehensive income. Against this must be set the demands of the University's strategic capital investment programme for the operational estate and equipment and IT, which in 2018-19 totalled £194.3m.

The activities of Cambridge Assessment (CA) and Cambridge University Press (CUP) further the mission of the University in important ways and are important sources of funds for the Academic

University. In the financial year to 31 July 2019, examination and assessment services produced a surplus before investment gains and before share of operating surplus in joint ventures and associates of £97.0m, while publishing services produced a £32.6m surplus in the same period. Routinely, 30% of these surpluses are transferred to the University and used towards funding capital expenditure, alongside donations, grants, and a continued draw on University unrestricted resources. In addition, this year special transfers of £208m have been agreed, reflecting accumulated surpluses built up by these businesses in recent years and considered surplus to their own mid-term business requirements. These transfers will take place in 2019-20.

The overall **net cash outflow for the Group was £(122.8)m for the year,**

reflecting the continued progression of the University's strategic capital investment programme and investment of bond proceeds in the endowment fund and other market investments.

As at 31 July 2019, the Group had outstanding bond liabilities totalling £988.8m.

Over time, proceeds from the bonds will provide added flexibility in the continuing support of the University's academic mission and student interest

Net assets

The following table shows the movement in Group net assets analysed into its main segments:

Table 3

| | HEI, Trusts and others £m | Assessment £m | Press £m | Eliminations £m | Group £m |
|-------------------------------------------|---------------------------------|------------------|-------------|--------------------|--------------|
| Net assets at 31 July 2018 | 4,490 | 646 | 119 | (17) | 5,238 |
| Surplus for the year before tax | 43 | 53 | 25 | – | 121 |
| Taxation | – | (1) | (3) | – | (4) |
| Surplus for the year (Table 2) | 43 | 52 | 22 | – | 117 |
| Actuarial loss | (170) | – | (38) | – | (208) |
| Gain on currency translation | – | 1 | 1 | – | 2 |
| Loss on deconsolidation of Trust | (2) | – | – | – | (2) |
| Dividend paid to non-controlling interest | – | (2) | – | – | (2) |
| Net assets at 31 July 2019 | 4,361 | 697 | 104 | (17) | 5,145 |

The Group's net assets totalled £5,145m as at 31 July 2019 (2018: £5,238m). The decrease in net assets largely relates to increased pension liabilities resulting from significant actuarial losses on the Group's contributory pension schemes and changes in the USS deficit funding levels, partly offset by increases in the value of investments and expenditure on fixed assets.

Fixed assets

The University continued to deliver against its prioritised capital investment programme, focusing on maintaining and enhancing its world-class facilities and infrastructure in order to safeguard its position as a global leader in education and research. However, cash generated from the University's own activities continues to be insufficient to deliver significant elements of the programme. For this reason, philanthropy and other sources of capital funding are becoming increasingly important to the future programme's success.

In the year 2018-19, fixed asset additions were £154.0m, with capital expenditure on land and buildings of £121.8, and further expenditure of £32.2m on equipment. The University continues to project a reduction of annual capital spend to more sustainable mid-term levels

as it completes the extensive capital programme of the last few years. Investment of £145.3m was made in the academic estate across a wide range of building projects, with significant expenditure on the major new Cavendish III national laboratory facilities on the West Cambridge site.

The University has an ambitious, academically prioritised programme of capital investment stretching forward into the coming years. The total given for capital investments includes projects on the Cambridge Biomedical Campus, the New Museums site, the Old Addenbrooke's site and at the West Cambridge site.

On the wider front, the University's estates strategy is reshaping the City. Focused on the major campus areas of West and North West Cambridge, the Biomedical Campus and the City Centre **the estates strategy is supporting both continued academic excellence**

and the development of housing, transport, and childcare facilities, for staff and their families. The University continues to develop its site at Eddington (formerly North West Cambridge), contributing attractive yet affordable housing solutions for key workers and postdoctoral staff. Phase 1 is now complete and provides University housing for letting to staff, market housing for sale and let, a primary school, supermarket, retail units and further sites for research. Phase 1 is now generating a rental income stream of £6.3m p.a. in accordance with the rental model agreed with Cambridge City Council, providing a level of subsidy from market rates. Work continues to optimise the plans for a second phase of development at Eddington to consolidate on the University's strategic investment in the future success and value of this exciting new quarter of the City of Cambridge.

Pension schemes

The costs and risks of the pension schemes to which the Group is exposed remain of heightened concern, in particular in relation to the [Universities Superannuation Scheme \(USS\)](#). The USS is a multi-employer scheme and Note 28 to the Accounts describes how the scheme is reflected in these statements. The **USS triennial actuarial valuation as at 31 March 2017 has resulted in a material increase in the scheme deficit**, with the cost of future service benefits substantially higher than in the previous valuation. For the purposes of the Financial Statements, the calculation of the liability for the obligation to fund the USS deficit uses the modeller shared by the British Universities Finance Directors Group for the Higher Education sector, and reflects the Schedule of Contributions put in place in January 2019 following the finalisation of the 2017 valuation, as updated for current discount rate information.

The 2018 actuarial valuation was finalised after the year end and indicated a shortfall of £3.6bn. Following the completion of the 2018 actuarial valuation, a new deficit recovery plan has been agreed which will materially reduce the Group's liability under the scheme. This revision to the recovery plan is deemed a non-adjusting post balance sheet event and so whilst significant disclosures of the impact of the change under the 2018 valuation have been reflected in the financial statements this has not resulted in a change to the actual financial position for the year ended 31 July 2019 reported under the 2017 valuation.

The Group has three other major schemes: the [Cambridge University Assistants' Contributory Pension Scheme \(CPS\)](#) for assistant staff and two defined benefit schemes for staff of the Cambridge University Press. The CPS is a hybrid-defined benefit scheme with a defined contribution component. The scheme remains open to new joiners and future accrual. While the

triennial valuation of the CPS at 31 July 2018 has shown a significantly improved position, the Group continues to make deficit-recovery contributions to the scheme of £14.6m p.a.

The Cambridge University Press defined benefit schemes are closed to new joiners and, following the triennial valuation of the two UK schemes as at 1 January 2016, are subject to a recovery plan projecting an aggregate deficit contribution of £25.3m to be funded by 31 July 2022. As at 31 July 2019, £16.0m of the deficit contribution remains to be funded.

Based on the 2017 actuarial valuation and reflecting additional liabilities associated with the acquisition of the Centre for Evaluation and Monitoring, the USS liability recognised in the accounts has increased by £228.6m to £347.5m as at 31 July 2019 (2018: £118.9m). The CPS and the University Press UK schemes (being single-employer schemes) are included in the Financial Statements following FRS 102 and the associated net pension liability is £741.4m (2017-18: £516.8m), of which £108.4m relates to the University Press UK schemes. Finally, there is a modest net pension asset recognised in 2018-19 of £0.2m in respect of the University Press US schemes and the Local Government Pension Scheme for staff employed through the University's primary school. Pensions are discussed further in Note 34 to the Accounts.

The Group's current service costs and deficit-recovery contributions as reflected through staff costs in the year 2018-19 were £362.5m, which includes the non-cash figure of £230.7m reflecting the change in underlying assumptions in calculating the USS accounting provision noted above. It is recognised that forward employer contributions are likely to increase in the medium term. While the University faces pressure on its pension schemes' costs and risks (in particular, on the USS) and on staff costs more generally given

the pay restraint of recent years, it is relatively well positioned in the sector to handle these potential challenges in the short term through the reprioritisation of funds.

Long-term borrowings

In 2012, the University issued £350m of 3.75% unsecured bonds due in October 2052. The bonds are listed on the London Stock Exchange. The net proceeds of the issue (£342m) were applied in the University's investment in Eddington.

In 2018, the University captured a market opportunity in securing additional external finance at historically low interest rates, providing the University with options to further develop its non-operational estate (i.e. projects outside those directly enabling core academic teaching and research activities). **The University successfully raised £600m in unsecured external finance through two tranches:**

- £300m 60-year (2078) bullet repayment fixed-rate Bond at coupon 2.35% p.a.
- £300m 50-year (2068) CPI-linked Bond at coupon 0.25% p.a., amortising from year 10 and capped at 3% and floored at 0%.

Over time, proceeds from the bonds will provide added flexibility in the continuing support of the University's academic mission and student interest through the development of income-generating projects in the non-operational estate, including further strategic housing. Such income-generating projects are of high strategic importance: they deliver significant indirect benefits essential to the University's primary mission, while also addressing the critically important housing challenge, providing alternative income streams at a time of significant financial volatility.

Financial outlook

The University is confident in its long-term financial sustainability.

The University seeks to manage its sources of revenue effectively and its costs efficiently, in order to generate the long-term cash flow needed to ensure it maintains a pre-eminent position amongst the world's leading universities.

The University's single largest source of funding — **income from research grants and contracts** — is projected to continue in steady growth, despite the uncertainties surrounding future European research funding following Brexit and the restructuring of UK Research Councils. Fee income is expected to increase in line with a long-term upward trend in postgraduate student numbers, although this could be somewhat offset by any changes in response to the recommendations of the government's post-18 review of education and funding.

In a highly competitive marketplace, Cambridge Assessment's international activities and income are expected to continue to grow over the next five years, given continued investment in research, technology, product development and staff. Cambridge University Press also anticipates steady revenue growth in the face of global economic and competitive challenges and evolving customer needs. Increasing strategic alignment, greater joint investment between CA and CUP, and closer working with the Academic University are already starting to yield benefits, with the prospect of potential combined benefits from the recent acquisition of the Centre for Evaluation and Monitoring (CEM).

Going forward, the long-term growth objective for the CUEF has been marginally reduced (to 5.0% + CPI), but elevated asset valuations as at 31 July 2019 mean that medium-term investment returns from this point are likely to be below this target level.

Principal risks and uncertainties

These are uncertain times for both the Higher Education sector and the global economy. As the University's principal executive body, the University Council takes primary responsibility for ensuring the University has an effective and balanced enterprise risk management framework in place. Business risk management is at the core of the University's overall system of internal controls and is designed to focus on and mitigate, to every extent possible, the most significant risk events that might adversely or beneficially affect the University's ability to achieve its policies, aims and objectives.

In January 2019, the University Council approved a new risk management framework and policy, which applies throughout the University

The University is committed to ensuring that it has a robust and comprehensive system of risk management in line with the requirements of the Office for Students, and follows good practice in considering risk appetite in the context of the University's academic mission, seeking to ensure an appropriate balance between risk aversion and opportunity capture. The business risk management approach identifies and appraises risks and opportunities in a systematic manner and is integrated and embedded with the University's planning, investment decision-making and operational management processes. Accountability and responsibility for risk mitigation is assigned to

The senior leadership team is responsible for identifying and managing risks across the University's activities

management across the devolved organisation. Managers are encouraged to implement good risk management practice across the University. The University makes conservative and prudent disclosure of the financial and non-financial implications of risks.

In January 2019, the University Council approved a new risk management framework and policy, which applies throughout the University, apart from CUP and CA which have their own policies and procedures for risk management. The new framework is designed to allow the senior leadership team to consider the University's key risks in a meaningful way and within the context of the University's evolving priorities, prior to scrutiny and approval of the University Risk Register through the Audit Committee and Council.

The senior leadership team is responsible for identifying and managing risks across the University's activities. The Council receives reports on the University's risks at least biannually, and seeks assurances over risk management and controls from individuals identified as accountable for risks. The Council has delegated to the Audit Committee the responsibility for reviewing the University's risk management processes to ensure that they are adequate and effective. The Audit Committee considers risk management as a standing item in its meetings to ensure routine monitoring, and will report to the Council on internal controls and alert the Council to any emerging

issues as necessary. The Audit Committee also receives an annual opinion from the internal auditors on the adequacy and effectiveness of the University's arrangements for risk management, control, governance and Value for Money, and provides assurance to Council on the adequacy and effectiveness of the University's arrangements for risk management.

In parallel to the introduction of the new risk management framework, the University's senior leadership team identified a revised set of University risks. The University's risk register identifies those risks that are considered to have a fundamental impact on the University's ability to deliver its mission or to operate effectively. The principal risks and uncertainties of the University are broadly consistent year on year: its long-term ability to maintain and develop its research funding, attract the best staff and students, and maintain, refresh and renew its physical facilities. The activities of Cambridge Assessment and Cambridge University Press are subject to the pressures of international competition. CA and CUP balance the need to reinvest sufficient of their operating surplus to thrive with the need to support the University's core academic activities wherever possible.

The University remains comparatively well positioned in the sector to deal with financial risks. Revenue streams are well diversified, both in terms of revenue line and geographically. The fact that the University does not seek to 'profit maximise' means that there are additional sources of revenue open that it has chosen not to maximise. These sources of revenue provide significant resilience, as does the strong and liquid balance sheet, enabling the University to manage the unexpected over the short term, and providing time to make the necessary operating adjustments.



Key strategic risk areas identified include:

| Risk area | Responses and actions |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Reputational and financial impact through failure to meet OfS and other stakeholder expectations for widening student access; student dissatisfaction in the quality of their educational experience; failure to recruit the very best undergraduate and postgraduate students; failure to ensure that educational facilities are of an acceptable standard for a world-class educational institution.</p> | <ul style="list-style-type: none"> • Implementation of the actions committed to in the University's agreed Access and Participation Plan (2020–21 to 2024–25). • Full engagement with Colleges which are responsible for undergraduate admissions. • Fundamental review of widening participation expenditure and development of new initiatives. • Delivery and further development of the Student Support Initiative. • Student Recruitment Strategy. • Review of curricula and methods of teaching and examination. • Launch of the Education Framework. |
| <p>Changes to government policy lead to further cuts in financial support and provision for education. Negative outcomes from the ongoing government review of post-18 education and funding in relation to student tuition fees. Negative impact or delays to funding through the formation of UK Research and Innovation, which has brought together the current Research Councils, and the increasing emphasis on national research institutes which might affect restructuring of Research Councils.</p> | <ul style="list-style-type: none"> • The University continues to engage with government directly and through the HE sector to influence policy in support of its education and research mission. The University also continues to diversify its income sources. • The College dimension of education provision is distinctive and successful, but it is costly to deliver. The University continues to review ways of controlling costs, seeking value for money gains, and opportunities to develop the mix of students over time, while maintaining the highest quality of education and without compromising on admission standards. • The University will continue to develop strategic relationships with research funders, including Research Councils and industrial partners. |
| <p>Brexit outcomes restrict access to movement and funding of EU students and staff. Reduced access to current levels of EU Research income. Wider economic downturn impacts future sources of revenue and availability of indirect labour and materials, disrupting the capital expenditure programme.</p> <p>Areas of high-risk are: EU Research Funding, Immigration Costs, Staff Counselling, EU Student Recruitment, Student Funding and Communications.</p> | <ul style="list-style-type: none"> • The ongoing uncertainties and likely direct and indirect human and financial consequences of the UK's imminent exit from the EU are of significant concern. The University and the HE sector continue to engage with government on all Brexit issues. • The University's strategic and operational-level Brexit working groups continue to review and develop plans to ensure that the University maintains and enhances its position as the external environment changes. The University has agreed interim measures to support meeting immigration costs for existing EEA staff. • Loss of European Research Council (ERC) funding is likely to impact on the University's ability to engage leading researchers. HM Treasury has committed to guarantee existing ERC funding commitments. |
| <p>Increasingly competitive landscape for all forms of research funding.</p> | <ul style="list-style-type: none"> • The University continues to invest significant resources in preparation for the upcoming REF21 funding round and continues to enhance the capabilities and capacity of its Research Office in support of the ongoing processes for grant application and management. • The University has a growing focus on industrial research collaboration with international partners, focusing on finding solutions to the major global challenges. |
| <p>Significant downturn in financial markets leads to reduced financial strength.</p> <p>Combined impact of devalued long-term Investments, reduced endowment distribution levels, deterioration in pension valuations (increasing contribution levels), and reduced sources of revenue and philanthropy.</p> <p>Suboptimal management of long-term financial sustainability leads to erosion of financial health with enforced curtailment of investment in the University's primary objectives (both capital and operational requirements) in support of academic teaching and research priorities, leading to an indirect loss of social value.</p> | <ul style="list-style-type: none"> • The University continues to focus on the optimal management of long-term financial sustainability, including stress testing and enhanced contingency planning. • The University is actively exploring opportunities to attract new revenue streams, modernise processes to seek cost efficiencies and ensure its capital programme is fully funded ahead of new commitments being made. • Over time, more fundamental adjustments to the cost base could be made but would negatively impact on students and research. Likewise capital investment would have to be prioritised on refurbishment over investment. • The University is investing further in its Development and Alumni Relations activities. A new campaign with a target to raise £2bn across collegiate Cambridge was launched in October 2015 and has already delivered £1.6bn. This will include areas of substitutional funding. • The professionally managed CUEF has allocations across a diversified range of asset classes, sectors, styles and geographies with a broad equity focus, designed to optimise returns and be resilient over the long term. |

| Risk area | Responses and actions |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Both CUP and CA operate in challenging international markets where global economic conditions may adversely impact their financial performance, reducing the funds available for reinvestment in the University's core academic mission.</p> <p>The University has an increasing international footprint of activities. International tax laws are narrowing the distinction between supporting activities and permanent establishments, leading to the potential for more overseas activity to become taxable.</p> | <ul style="list-style-type: none"> • The University's businesses look to diversify their product offerings, develop new revenue streams and deepen existing capabilities. • A joint Board now provides oversight of these businesses and is developing an overarching strategy to ensure they continue to thrive by exploiting business synergies and new distribution channels. • The University continues to monitor the key risks associated with its combined international activities. • The Strategic Partnerships Office coordinates functional due diligence of proposed new international activities, sharing best practice. • The University leverages specialist external taxation and legal advice in support of its core internal capabilities. |
| <p>Inability to attract and retain the best academics and adequately resource professional and administrative staff through a failure to compete with escalating levels of international reward levels, growth in the University's complexity and scale, and high costs of living and housing in the Cambridge area.</p> <p>In particular, there is a risk that the USS triennial revaluation leads to increased employer and employee contributions to fund a valuation deficit.</p> | <ul style="list-style-type: none"> • The University continues to focus on pensions and pay as key components of a competitive employment proposition, seeking economy, efficiency and effectiveness in its operations to accommodate pay and pension inflation as necessary. • The University is also focusing on the provision of transport, nursery schooling and housing, with the Eddington development designed to ease pressures. • The USS's triennial valuation, currently under extended review, indicates an increased deficit and probable materially increased cost of provision of future defined benefits. The University continues to work with the sector to explore sustainable long-term options that might provide employers and staff with better value for money and more flexibility. |
| <p>Failure to maintain adequate risk management of Health & Safety related risks and compliance with associated regulations across the distributed University estate and activities leads to personal injury / fatality or significant loss of facilities.</p> | <ul style="list-style-type: none"> • The University has policies and procedures in place to support appropriate risk management and compliance across the organisation. However, the devolved nature of the University and diverse nature of associated direct and indirect activities represent a challenge in ensuring full assurance coverage. |
| <p>Inadequate long-term maintenance and development of the academic and non-academic estate and supporting infrastructure.</p> | <ul style="list-style-type: none"> • The University has an ambitious capital building programme and is actively sharpening the prioritisation and management of its strategic investments. • The University seeks to optimise available funding through maximising associated capital grants and philanthropic resources and by increasing net operating cash flows. |
| <p>Significant data breach, failure to comply with GDPR, or major information security event (cyber security) leads to loss of confidential / commercially sensitive information or failure of IT infrastructure.</p> | <ul style="list-style-type: none"> • The University has invested resources to understand its data assets and the security landscape across a devolved institution, and to enable assessment of the risks associated with loss of confidential and commercially sensitive information. • The University is developing an updated Cyber Strategy to deliver enhanced security controls across the University, noting that this is a challenge in more devolved areas of control and in an environment of increased and changing threats. |

Concluding remarks

“It is critical to our continued success that we maintain the financial ability to invest in our staff and provide research and teaching facilities commensurate with our standing. Our financial strategy continues to support the maximisation of positive impact over time, rather than revenues and profits. In a period of unprecedented financial uncertainty for our sector and for the broader economy, Cambridge remains focused on generating a sufficient recurrent financial surplus to invest in our people, our infrastructure, our buildings and our systems, to remain one of the world’s leading universities.”

We continue to allocate unrestricted income and capital to reflect the University’s strategic priorities and commitments and to manage prudently the significant risks and uncertainties that could otherwise undermine our effectiveness in delivering our mission. Key financial risks remain the ability to grow income particularly from regulated sources to match cost growth, the trading position of Cambridge Assessment and Cambridge University Press, and the performance of the CUEF. We remain comparatively well positioned to deal with these issues, with significant resilience from our diversified revenues, and additional sources available, and with our strong and liquid balance sheet that guards against short-term shocks, and allows time to make necessary operating adjustments.”

Anthony Odgers

Chief Financial Officer





Corporate governance

1. The following statement is provided by the Council to enable readers of the financial statements to obtain a better understanding of the arrangements in the University for the management of its resources and for audit.

2. The University endeavours to conduct its business in accordance with the seven principles identified by the Committee on Standards in Public Life (selflessness, integrity, objectivity, accountability, openness, honesty, and leadership) and within the general principles of the Higher Education Code of Governance, which has been provided by the Committee of University Chairs. Further information is given at paragraph 9 below.

Under the Statutes, the Governing Body of the University is the Regent House, which comprises some resident senior members of the University and the Colleges, together with the Chancellor, the High Steward, the Deputy High Steward, the Commissary, and the external members of the Council. The approval of the Regent House is required for changes to the University's Statutes and Ordinances and for any other matter for which in Statute or Ordinance the University's approval must be obtained; the Council and the General Board may also decide to seek the Regent House's approval on questions of policy which are considered likely to be controversial. The Council of the University is the principal executive and policy-making body of the University, with general responsibility for the administration of the University, for the planning of its work, and for the management of its resources. The membership of the Council includes four external members, one of whom chairs the Audit Committee (see paragraph 4 and 7 below). The Statutes provide

for the appointment of a Deputy Chair of the Council, normally one of the external members, to take the chair as necessary or when it would be inappropriate for the Vice-Chancellor to do so, in particular in relation to the Vice-Chancellor's own accountability. The General Board of the Faculties is responsible for the academic and educational policy of the University.

3. The University is an exempt charity and is subject to regulation by the Office for Students (OfS). The members of the University Council are the charity trustees and are responsible for ensuring compliance with charity law.

4. The Council is advised in carrying out its duties by a number of committees, including the Finance Committee, the Audit Committee, the Planning and Resources Committee and the Remuneration Committee. The Finance Committee is chaired by the Vice-Chancellor and advises the Council on the management of the University's assets, including real property, monies, and securities. The Audit Committee, which has a majority of external members, governs the work of the Internal and External Auditors, reporting on these matters directly to the Council. As part of a review of the University's risk management processes, in January 2019, the Council approved the transfer of the principal responsibilities relating to risk management from the Risk Steering Committee to the Audit Committee and to dissolve the Risk Steering Committee with immediate effect. In addition, the Audit Committee reviews the University's risk management processes to ensure that they are adequate and effective. The Planning and Resources Committee is a joint committee

of the Council and the General Board. Its responsibilities include the preparation of the University's budget. The Remuneration Committee is chaired by an external member of the Council and advises the Council on the remuneration of senior staff in the University. The West and North West Cambridge Estates Board reports to the Council on its oversight of the development of two key University sites. The Press and Assessment Board advises the Council on matters concerning Cambridge University Press and Cambridge Assessment.

5. Under the terms of the OfS' Terms and Conditions of funding for higher education institutions and the Terms and Conditions of the Research England grant between the University and the OfS, the Vice-Chancellor is the Accountable Officer of the University.

6. Under the Statutes, it is the duty of the Council to exercise general supervision over the finances of all institutions in the University; to keep under review the University's financial position and to make a report thereon to the University at least once in each year; to recommend bankers for appointment by the Regent House; and to prepare and publish the annual accounts of the University in accordance with UK-applicable accounting standards such that the accounts give a true and fair view of the state of affairs of the University.

7. It is the duty of the Audit Committee to keep under review the University's risk management strategy and implementation; to keep under review the effectiveness of the University's internal systems of financial and other controls and governance; to advise the Council on the appointment of external and internal auditors; to consider

reports submitted by the auditors, both external and internal; to monitor the implementation of recommendations made by the internal auditors; to satisfy itself that satisfactory arrangements are adopted throughout the University for promoting Value for Money (economy, efficiency, and effectiveness); to monitor the University's management and quality assurance of data submitted to the OfS and other bodies; to establish appropriate performance measures and to monitor the effectiveness of external and internal audit; to make an annual report to the Council, the Vice-Chancellor, and to the OfS; to receive reports from the OfS and other authorities. Membership of the Audit Committee includes as a majority five external members (including the chair of the Committee), appointed by the Council with regard to their professional expertise and experience.

8. There are Registers of Interests of Members of the Council, the General Board, the Finance Committee, and the Audit Committee, and of the senior administrative officers. Declarations of interest are made systematically at meetings. All members of the Council were routinely asked to self-certify against the OfS indicators of a 'fit and proper person' at the beginning of their tenure as trustees.

9. The University is a self-governing community whose members act in accordance with the seven principles of public life (see paragraph 2 above) and in pursuit of the objectives and purposes of the University as set out in its Statutes. The University complies with most but not all of the voluntary Higher Education Code of Governance published in December 2014 and revised in June 2018 by the Committee of University Chairs. In particular the Vice-Chancellor is chair of the Council, which does not have a majority of external members, and the Council is subject to the statutory authority of the Regent House.

Members of the Council and the charity trustees

during the year ended 31 July 2019

| Position: | Name: |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The Chancellor: | Lord Sainsbury of Turville |
| The Vice-Chancellor: | Professor Stephen Toope |
| Heads of Colleges: | Dr Anthony Freeling Professor Christopher Kelly (from 1 January 2019) The Reverend Dr Jeremy Morris Professor Michael Proctor Professor Susan Smith (until 31 December 2018) |
| Professors or Readers: | Professor Ross Anderson (until 31 December 2018) Professor Nick Gay Professor Fiona Karet Professor Susan Oosthuizen (until 31 December 2018) Professor Richard Penty (from 1 January 2019) Dr Jason Scott-Warren (from 1 January 2019) |
| Members of the Regent House: | Dr Sam Ainsworth (from 1 January 2019) Dr Richard Anthony (until 31 December 2018) Dr Ruth Charles Dr Stephen Cowley Dr Jennifer Hirst Dr Nicholas Holmes Dr Alice Hutchings (until 29 October 2018) Dr Andrew Sanchez (from 1 January 2019) Dr Mark Wormald Ms Jocelyn Wyburd |
| Student Members: | Ms Evie Aspinall (until 30 June 2019) Mr Alessandro Ceccarelli (from 1 July 2019) Ms Poppy Cockburn (from 1 July 2019) Mr Marcel Llaverro Pasquina (until 30 June 2019) Mr Edward Parker Humphreys (from 1 July 2019) Ms Sofia Ropek-Hewson (until 30 June 2019) |
| External Members: | Ms Sharon Flood (from 1 January 2019) Professor Sir David Greenaway Mr Mark Lewisohn Mr John Shakeshaft (until 31 December 2018) Ms Sara Weller |

The Chancellor, external members, student members, Dr Freeling, Professor Kelly, Dr Morris, Professor Proctor, Professor Smith (until 31 December 2018), Dr Anthony (until 31 December 2018) and Dr Wormald are not employees of the University. The other members of the Council are employees of the University. No member of the Council receives payment for serving as a member of the Council.

Statement of internal control

1. The Council is responsible 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 the Council is responsible, in accordance with the Statutes and Ordinances and the Office for Students' (OfS) Terms and Conditions of funding for higher education institutions and the Terms and Conditions of the Research England grant.

2. The system of internal control is 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 on an ongoing basis. The system of internal control is designed to manage, rather than eliminate, the risk of failure to achieve policies, aims, and objectives; it therefore provides reasonable but not absolute assurance of effectiveness.

3. During the year ended 31 July 2019, the Council approved and implemented a new risk management framework and Policy, designed to improve the identification and management of risks and strengthen the links with University objectives. This process was in place for the year ended 31 July 2019 and up to the date of approval for the financial statements. The process is in accordance with OfS guidance.

4. The Council is responsible for ensuring that a sound system of internal control is maintained. The following principles of internal control have been established and applied as described below.

(a) The Council receives periodic reports from the Chair of the Audit Committee concerning internal control and risk management, together with the minutes of all meetings of the Audit Committee.

(b) The Audit Committee reviews the University's policy against bribery and corruption on an annual basis.

(c) The Audit Committee receives regular reports from the University's internal auditors, Deloitte LLP, which include the internal auditors' independent opinion on the adequacy and effectiveness of the University's system of internal control and risk management, together with recommendations for improvement.

(d) The Council has delegated to the Audit Committee the responsibility for reviewing the University's risk management processes to ensure that they are adequate and effective. Risk management is a standing item on the Audit Committee agenda and is the driving element in the design of the annual internal audit programme of work.

(e) The Audit Committee's annual report (which is submitted to Council) sets out how risks are identified and evaluated, how risk management is embedded in ongoing operations and reviews the effectiveness of the risk management framework. The annual report also considers the University's arrangements for the prevention and detection of corruption, fraud, bribery and other irregularities.

(f) The University's senior leadership team is responsible for identifying and managing risks across the University's activities, within the context of the University's priorities and objectives. The review of risks encompasses business, operational, compliance, financial and reputational risks.

(g) All identified risks are evaluated using a common framework for scoring that considers both the likelihood and impact of risks becoming a reality. The scoring guidance for evaluating risks prompts risk owners to consider the following categories of impact: finance, compliance, safety, service delivery (operational), reputation and people.

(h) The risk management framework applies across the University's institutions, with further guidance and information provided to those who own or manage University, School, Faculty or Departmental risks (primarily through web-based resources and training). Risk assessment underpins the University's programme of internal audit work and is embedded as part of the University's annual planning processes.

(i) The University's Risk Register identifies those risks that are considered to have a fundamental impact on the University's ability to deliver its mission or to operate effectively. The risk register is considered and formally approved by the Council at least annually, enabling it to receive direct updates on the evaluation and management of risks.

5. The Council is also responsible for reviewing the effectiveness of the system of internal control. The Council's review of the effectiveness of the system of internal control is informed by:

(a) the work of the University's internal auditors, Deloitte LLP, as reported to the Council through the Chairman of the Audit Committee, the Audit Committee's annual report and the minutes of all meetings of the Audit Committee;

(b) the work of the senior officers and the risk owners within the University, who have responsibility for the development and maintenance of the internal control framework; and

(c) comments made by the external auditors in their management letter and other reports.

6. No significant control weaknesses or failures were identified during the 2018-19 financial year, or up to the date of approval of the financial statements.

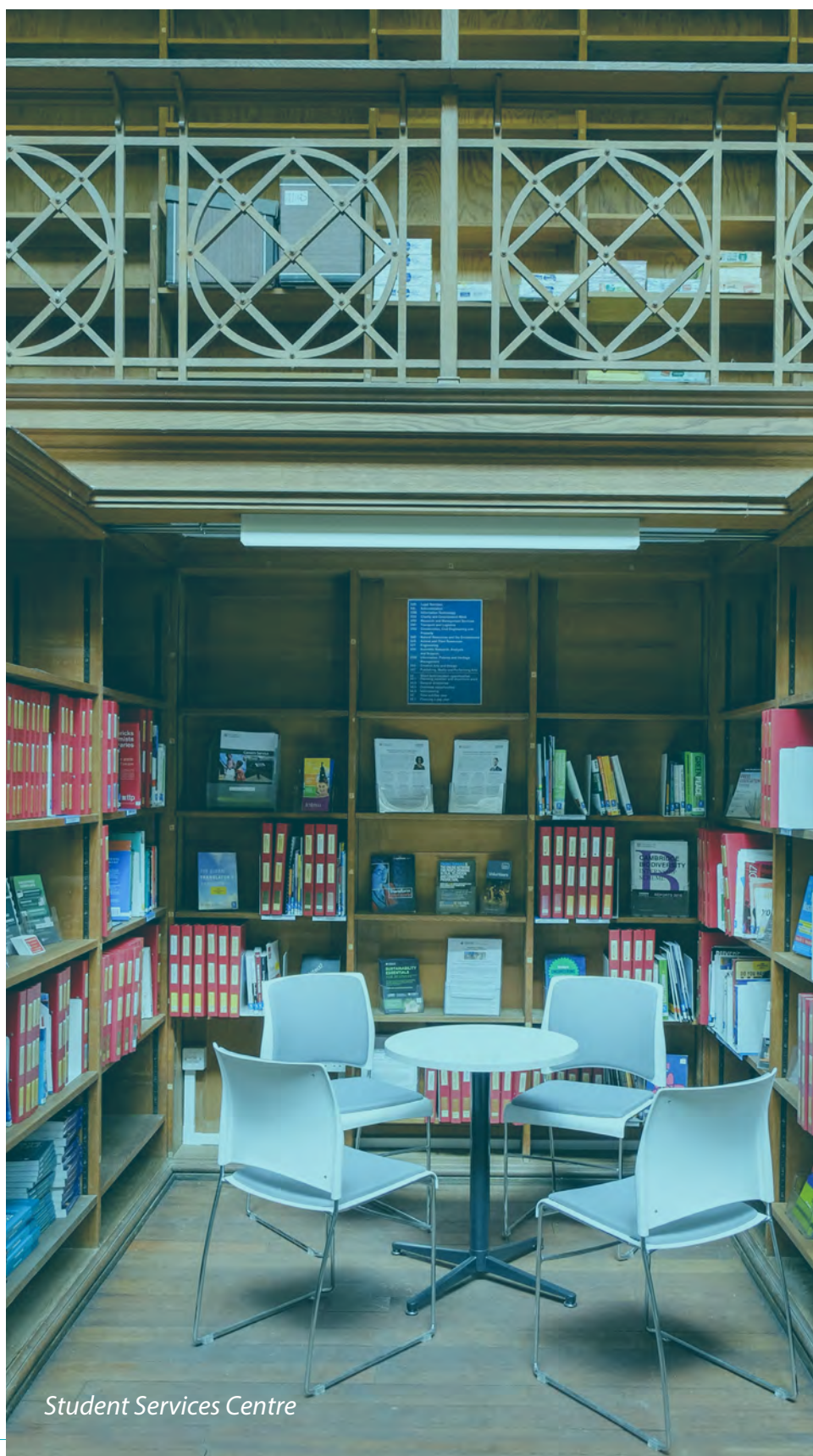
Statement of the responsibilities of the Council

Under the University's Statutes and Ordinances it is the duty of the Council to prepare and to publish the annual accounts of the University in accordance with UK applicable accounting standards such that the accounts give a true and fair view of the state of affairs of the University.

The Council is responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the University.

In preparing the financial statements the Council is required to:

- (a) select suitable accounting policies and then apply them consistently;
- (b) make judgements and estimates that are reasonable and prudent;
- (c) state whether applicable accounting standards have been followed;
- (d) prepare the financial statements on a going concern basis unless it is inappropriate to presume that the University will continue to operate;
- (e) ensure that income has been applied in accordance with the University's Statutes and Ordinances, the Terms and conditions of funding for higher education institutions, the Terms and conditions of the Research England grant, and the funding agreement with the National College for Teaching and Leadership; and
- (f) safe-guard the assets of the University and take reasonable steps to prevent and detect fraud and other irregularities.



Student Services Centre

Independent auditors' report to the Council of the University of Cambridge

Report on the audit of the financial statements

Opinion

In our opinion, the University of Cambridge's Group financial statements and University financial statements (the "financial statements"):

- give a true and fair view of the state of the Group's and of the University's affairs as at 31 July 2019 and of the Group's and the University's income and expenditure, gains and losses, changes in reserves and the Group's 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 prepared in accordance with the requirements of the Statement of Recommended Practice – Accounting for Further and Higher Education and the requirements of the Office for Students' Accounts direction (OfS 2018.26).

We have audited the financial statements, included within the Reports and Financial Statements (the "Annual Report"), which comprise: the Balance Sheets as at 31 July 2019; the Statements of comprehensive income, the Consolidated statement of cash flows, and the Statements of changes in reserves for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Our opinion is consistent with our reporting to the Audit Committee.

Basis for 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, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group or the University.

Other than those disclosed in note 14 to the financial statements, we have provided no non-audit services to the Group or the University in the period from 1 August 2018 to 31 July 2019.

Our audit approach

Overview



- Overall Group materiality: £21.9 million (2018: £18.7 million), based on 1% of total income.
 - Overall University materiality: £20.4 million (2018: £18.7 million), based on 1% of total income.
 - The scope of our work covered the Academic University, Cambridge Assessment, Cambridge University Press and the Cambridge University Endowment Fund.
 - Our audit scope addressed 92% of Group income and 99% of Group assets.
 - Revenue recognition for donations and research grants.
 - Valuation of investments.
 - Valuation of North West Cambridge.
 - Valuation of pension schemes.
-

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we looked at where the Council made subjective judgements, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

Capability of the audit in detecting irregularities, including fraud

Based on our understanding of the Group and sector, we identified that the principal risks of non-compliance with laws and regulations related to the Office for Students' regulatory framework, including the terms and conditions of funding, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the preparation of the financial statements such as the Statement of Recommended Practice – Accounting for Further and Higher Education, the requirements of the Office for Students' ("OfS's") Accounts direction (OfS 2018.26) and the Education Reform Act 1988. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to revenue recognition. Audit procedures performed by the group engagement team and/or component auditors included:

- substantive testing of revenue;
- testing of critical accounting estimates and judgements;
- incorporation of an element of unpredictability in the audit;
- testing journal entries, specifically around unusual revenue account combinations; and
- performing department visits.

There are inherent limitations in the audit procedures described above and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we would become aware of it. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. This is not a complete list of all risks identified by our audit.

| Key audit matter | How our audit addressed the key audit matter |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Revenue recognition for donations and research grants</i></p> <p>The Group recognised £111m of income in the year from donations and endowments and £592m from research grants (see notes 9 and 7). Research grants are recognised when the terms of the grant or contract are met, primarily as allowed expenditure is incurred. Often there will be timing differences between when cash is received and recognition criteria are met which requires income to be accrued or deferred. In addition there is judgement applied where performance conditions are used as the basis for income recognition.</p> <p>There is also judgement involved in determining when to recognise donation income with regards to when performance conditions have been met that allow recognition.</p> <p><i>Group and University</i></p> | <p>We have evaluated and tested the accounting policy for income recognition to ensure that this is consistent with the requirements of accounting standards. No exceptions were noted.</p> <p>We performed detailed testing of these revenue transactions, including deferred revenue. For a sample of research grants we tested the revenue recognised back to underlying grant agreements to identify any specific performance conditions that were attached to recognition. We also tested a sample of cash received and tested a sample of expenditure to confirm that the funds had been spent in accordance with the requirements of funding.</p> <p>We also tested a sample of donations and agreed that these were recognised in accordance with any performance conditions in the underlying donation agreements with a particular focus on larger individual donations. We also tested a sample back to cash receipt or where cash has not yet been received that the accrual or deferral is appropriate. We also performed income cut-off testing in the month before and after year-end to ensure income was recognised in the correct period.</p> <p>No exceptions were noted from our work.</p> |

Key audit matter

Valuation of investments

Refer to note 21 (Non-current asset investments) and note 11 (Investment income).

The majority of the Group investments (£3,456m) are held within CUEF so the valuation of the units, used by the various components of the Group in determining their investment valuations, is key. The remainder of the Group's investments (£833m) are a mix of investment properties, securities, subsidiaries / spin-out companies, and money markets investments. In recent years there has been an increase in the value of property related assets (including North West Cambridge) and other investments where judgement is needed when performing valuations.

Some (£916m or 21%) of the Group's total investments are valued using readily available market data, and are therefore relatively straightforward to value. Within CUEF, a large proportion (£2,141m or 62%) of investments are in pooled investment funds, where valuations are provided by the investment manager rather than directly from market data and the valuation of the underlying asset classes can, for some of these funds, be more subjective. Additionally, investments in private companies (of which £70m relates to the investment in Cambridge Innovation Capital), direct property investments and interests in property vehicles also require estimation and are therefore judgemental.

Group and University

Valuation of North West Cambridge

Refer to note 21b (Investment property).

The North West Cambridge development, including the related land with relevant planning permission, was recognised as an investment property in the prior year. Phase 1 of the development has been materially completed with a number of components, including: key worker housing; student accommodation, market housing and retail units. Management has plans for Phase 2 and Phase 3 of the development.

The development was valued at £362m at 31 July 2019 by an external valuation professional, an increase by £35m since prior year (FY18: £327m). There are a number of judgemental assumptions applied across the different components including: discount rate, rental growth, operating costs, yields, and expected sales prices for those units for sale.

A valuation of this nature has a material risk of error given that it, firstly, involves a number of subjective assumptions and, secondly, depends upon the inputs to the valuation being consistent with the facts, land usage and plans.

Group and University

How our audit addressed the key audit matter

For all quoted investments and pooled investments held in the CUEF we obtained confirmations from the custodian. For quoted securities, we performed independent verification of the prices used for valuation, and noticed no discrepancies. On a sample basis, we also obtained confirmations from fund managers for pooled funds to corroborate the information received from the custodian. We also performed procedures to assess the reliability of the information received, with a particular focus on the hardest to value - Level 3 - investments. No exceptions were noted from the work in terms of the valuation of the assets. However, the classification of the pooled investment funds is not currently reflective of the nature of the underlying assets due to the custodian's default classification of these investments. Management have included the relevant disclosures in note 39.

Investments in direct properties have been valued by third party valuation experts. We assessed the competency of the valuation professionals used by management and used PwC internal experts to assess the valuation methodology and review the reasonableness of the year-on-year capital movements. No exceptions were noted from this testing.

Included within interests in property vehicles is £26m in relation to the CUEF's interest in two property vehicles. The original investment in these vehicles was made a number of years ago, and management are valuing these interests internally. At 31 July 2019 the valuation of these interests is not significantly sensitive to the assumed value at the end of the arrangement, and therefore we concur with the values used.

We have performed testing of the valuation report prepared by the valuation professional engaged by the University. We reviewed the individual components of the development, agreeing estimates back to supporting evidence where available (including to sales contracts already in place, third party valuations, and evidence in support of current rental income). We also assessed the assumptions that feed into the valuation (including discount rate, expected rental yields and sales proceeds). We used the PwC Valuations team to assist us with assessing the valuation methods, the appropriateness of the comparators and benchmarks used by the valuation professionals and hence the assumptions adopted. We concluded that they all sit within external market ranges, where available, are consistent with underlying support and in line with our own expectations.

We compared the components of the valuations with support for the components of Phase 1 and the plans for Phases 2 and 3. We also reviewed Council minutes to obtain evidence of the University's intentions and plans for future phases, and ensured they were consistent with the assumptions for land use in the valuations adopted.

Based on this work, no material issues were noted.

Key audit matter**How our audit addressed the key audit matter**

Valuation of pension schemes

Refer to note 28 (Pension liabilities) and note 34 (Pension schemes). The Group has defined benefit pensions plans with net liabilities of £741m, which is significant in the context of the Group balance sheet. The Group also holds a liability in respect of the deficit reduction agreement for the multi-employer Universities Superannuation Scheme ('USS') of £348m.

Defined pension scheme liabilities are material to the Group and are affected by the value of the scheme's underlying assets and the actuarial assumptions, such as discount rates, inflation and life expectancy, used to calculate the value of the pension liabilities. There is a range of assumptions that can be used by actuaries depending upon the individual circumstances of the scheme, and a change in the assumptions can have a significant financial impact on the year-end pension liability.

In addition, the liability of £348m recognised in relation to USS reflects the results of the 2017 actuarial valuation and, similarly, is calculated using certain subjective assumptions such as discount rate and changes in staff numbers and salary inflation. Subsequent to year end a 2018 valuation was agreed between the parties. The subsequent valuation has been treated as a non-adjusting post balance sheet event based on the timing of the agreement. The March 2018 valuation, had it been recognised, would have reduced the liability by £150m.

Group and University

In respect of the Cambridge University Assistants' Contributory Pension Scheme (CPS) and the Press Contributory Pension Fund and the Press Senior Staff Pension Scheme (together 'Press') defined benefit schemes, we obtained the pension valuation reports from the external actuaries. With the assistance of our internal actuarial specialists we compared the inflation rates and discount rates used in the valuation of the pension liability by the external actuary to our internally developed benchmarks and considered the consistency of assumptions against the prior year.

We compared the assumptions around salary increases and mortality to national and industry averages as well as University specific information.

We performed testing over the census data on which the valuation is based. We agreed underlying assets in the scheme to confirmations obtained from fund managers, and obtained controls reports and/or financial statements to evaluate the reliability of the evidence obtained.

Based on this work, no material issues were noted.

In respect of the USS deficit recovery provision we have tested the contribution data and actuarial assumptions and are satisfied that the assumptions used for the USS provision are reasonable and we have confirmed the integrity of the underlying model used for its calculation.

We have satisfied ourselves that the treatment of the 2018 valuation as a non-adjusting subsequent event is appropriate and concluded the related disclosures are complete.

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Group and the University, the accounting processes and controls, and the industry in which they operate.

In relation to scoping our work the following were considered significant components - the Academic University, Cambridge Assessment, Cambridge University Press and the Cambridge University Endowment Fund.

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

| | <i>Group financial statements</i> | <i>University financial statements</i> |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall materiality | £21.9 million | £20.4 million |
| How we determined it | 1% of total income. | 1% of total income. |
| Rationale for benchmark applied | As the Group is a not-for-profit organisation, the most suitable benchmark to use for overall materiality is deemed to be total income. This is a generally accepted auditing benchmark. | As the University is a not-for-profit organisation, the most suitable benchmark to use for overall materiality is deemed to be total income. This is a generally accepted auditing benchmark. |

For each component in the scope of our group audit, we allocated a materiality that is less than our overall group materiality. The range of materiality allocated across components was £6.3m - £20m. Certain components were audited to a local statutory audit materiality that was also less than our overall group materiality.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above £1 million (Group and University audit) (2018: £935,000) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Conclusions relating to going concern

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's and University'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.

We have nothing to report in respect of the above matters.

However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Group's and University's ability to continue as a going concern. For example, the terms on which the United Kingdom may withdraw from the European Union are not clear, and it is difficult to evaluate all of the potential implications on the Group's and University's activities, students, suppliers and the wider economy.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon, i.e. A brief overview, Financial review, Corporate governance, Members of the Council, Statement of internal control and Statement of the responsibilities of the Council. 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.

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.

Responsibilities for the financial statements and the audit

Responsibilities of the Council for the financial statements

As explained more fully in the Statement of the responsibilities of the Council set out on page 29, 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 it determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Council is responsible for assessing the Group's and the University'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 or the University 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 FRC's website at: 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 University 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.

Other required reporting

Opinions on other matters prescribed in the Office for Students' and Research England's 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 Group and University 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 University of Cambridge's Statutes and Ordinances; and
- funds provided by the OfS and Research England have been applied in accordance with the relevant terms and conditions, and any other terms and conditions attached to them.

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the Audit Committee, we were appointed by the Regent House on 23 January 2009 to audit the financial statements for the year ended 31 July 2009 and subsequent financial periods. The period of total uninterrupted engagement is 11 years, covering the years ended 31 July 2009 to 31 July 2019.

The engagement partner on the audit resulting in this independent auditors' report is Stuart Newman.

PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
Cambridge
25 November 2019

Statements of comprehensive income

for the year ended 31 July 2019

| | | Group Year ended 31 July 2019 £m | Group Year ended 31 July 2018 £m | University Year ended 31 July 2019 £m | University Year ended 31 July 2018 £m |
|----------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------|-------------------------------------------|------------------------------------------------|------------------------------------------------|
| | Note | | | | |
| Income | | | | | |
| Tuition fees and education contracts | 5 | 320.2 | 295.1 | 306.1 | 283.0 |
| Funding body grants | 6 | 181.9 | 173.6 | 181.9 | 173.6 |
| Research grants and contracts | 7 | 592.4 | 524.9 | 582.9 | 515.5 |
| Examination and assessment services | 8 | 478.5 | 432.5 | 393.7 | 360.4 |
| Publishing services | | 334.0 | 313.0 | 300.8 | 275.6 |
| Donations and endowments | 9 | 111.4 | 63.8 | 121.1 | 62.9 |
| Other income | 10 | 133.4 | 142.1 | 128.6 | 127.2 |
| Investment income | 11 | 40.2 | 19.8 | 22.6 | 16.3 |
| Total income | 12 | 2,192.0 | 1,964.8 | 2,037.7 | 1,814.5 |
| Expenditure | | | | | |
| Staff costs | | | | | |
| - Excluding impact of USS deficit recovery | 13 | 904.3 | 845.1 | 829.6 | 782.2 |
| - USS deficit recovery | 13 | 230.7 | 4.5 | 224.1 | 5.2 |
| | | 1,135.0 | 849.6 | 1,053.7 | 787.4 |
| Other operating expenses | 14 | 969.6 | 933.5 | 876.6 | 845.1 |
| Depreciation | 14, 19 | 111.7 | 94.4 | 109.2 | 93.6 |
| Interest and other finance costs | 14, 15 | 91.2 | 33.6 | 91.1 | 33.5 |
| Total expenditure | | 2,307.5 | 1,911.1 | 2,130.6 | 1,759.6 |
| Surplus before other gains and losses and share of surplus / (deficit) in joint ventures and associates | | (115.5) | 53.7 | (92.9) | 54.9 |
| Share of operating surplus in joint ventures and associates | 10 | 1.5 | – | – | – |
| Gain on investments | 21b | 235.1 | 219.0 | 198.5 | 166.6 |
| Surplus before tax | | 121.1 | 272.7 | 105.6 | 221.5 |
| Taxation | 16 | (3.8) | (3.1) | (1.5) | (2.2) |
| Surplus for the year | 32 | 117.3 | 269.6 | 104.1 | 219.3 |
| Other comprehensive income / (expense) | | | | | |
| Actuarial gain / (loss) | 28, 29 | (208.2) | 122.5 | (207.9) | 122.5 |
| Gain / (loss) arising on foreign currency translation | | 1.9 | (2.9) | 0.9 | (2.3) |
| Profit on acquisition of Foundation | 35 | – | 1.6 | – | – |
| Loss on deconsolidation of Trust | 35 | (1.9) | – | – | – |
| Total comprehensive income / (expense) for the year | 32 | (90.9) | 390.8 | (102.9) | 339.5 |
| Represented by: | | | | | |
| Endowment comprehensive income for the year | 30 | 115.6 | 127.8 | 112.0 | 112.6 |
| Restricted comprehensive income for the year | 31 | 121.5 | 74.3 | 121.4 | 74.5 |
| Unrestricted comprehensive income / (expense) for the year | 32 | (328.0) | 188.7 | (336.3) | 152.4 |
| | | (90.9) | 390.8 | (102.9) | 339.5 |

Statements of changes in reserves

for the year ended 31 July 2019

| | Endowment £m | Restricted £m | Unrestricted £m | Total £m |
|--------------------------------------------------------------------------|-----------------|------------------|--------------------|----------------|
| Group | | | | |
| Balance at 1 August 2017 | 1,727.9 | 85.5 | 3,033.7 | 4,847.1 |
| Surplus for the year ended 31 July 2018 | 127.8 | 74.3 | 67.5 | 269.6 |
| Other comprehensive income | – | – | 121.2 | 121.2 |
| Total comprehensive income for the year ended 31 July 2018 | 127.8 | 74.3 | 188.7 | 390.8 |
| Release of restricted capital funds spent in the year ended 31 July 2018 | – | (61.9) | 61.9 | – |
| Dividend paid to non-controlling interest | – | – | (0.5) | (0.5) |
| Balance at 31 July 2018 | 1,855.7 | 97.9 | 3,283.8 | 5,237.4 |
| Surplus / (deficit) for the year ended 31 July 2019 | 117.5 | 121.5 | (121.7) | 117.3 |
| Other comprehensive expense | (1.9) | – | (206.3) | (208.2) |
| Total comprehensive income / (expense) for the year ended 31 July 2019 | 115.6 | 121.5 | (328.0) | (90.9) |
| Release of restricted capital funds spent in the year ended 31 July 2019 | – | (91.1) | 91.1 | – |
| Dividend paid to non-controlling interest | – | – | (1.7) | (1.7) |
| Balance at 31 July 2019 | 1,971.3 | 128.3 | 3,045.2 | 5,144.8 |
| University | | | | |
| Balance at 1 August 2017 | 1,449.3 | 84.3 | 2,764.4 | 4,298.0 |
| Surplus for the year ended 31 July 2018 | 112.6 | 74.5 | 32.2 | 219.3 |
| Other comprehensive income | – | – | 120.2 | 120.2 |
| Total comprehensive income for the year ended 31 July 2018 | 112.6 | 74.5 | 152.4 | 339.5 |
| Release of restricted capital funds spent in the year ended 31 July 2018 | – | (61.8) | 61.8 | – |
| Balance at 31 July 2018 | 1,561.9 | 97.0 | 2,978.6 | 4,637.5 |
| Surplus / (deficit) for the year ended 31 July 2019 | 112.0 | 121.4 | (129.3) | 104.1 |
| Other comprehensive expense | – | – | (207.0) | (207.0) |
| Total comprehensive income / (expense) for the year ended 31 July 2019 | 112.0 | 121.4 | (336.3) | (102.9) |
| Release of restricted capital funds spent in the year ended 31 July 2019 | – | (91.1) | 91.1 | – |
| Balance at 31 July 2019 | 1,673.9 | 127.3 | 2,733.4 | 4,534.6 |

Balance sheets as at 31 July 2019

| | | Group | Group | University | University |
|----------------------------------------------------------------|-----|------------------|-----------|-------------------|------------|
| | | 31 July | 31 July | 31 July | 31 July |
| | | 2019 | 2018 | 2019 | 2018 |
| <i>Note</i> | | £m | £m | £m | £m |
| Non-current assets | | | | | |
| Intangible assets and goodwill | 18 | 87.1 | 63.5 | 84.8 | 62.6 |
| Fixed assets | 19 | 2,601.4 | 2,559.3 | 2,595.8 | 2,554.6 |
| Heritage assets | 20 | 72.0 | 70.6 | 72.0 | 70.6 |
| Investment - other investments | 21a | 3,210.2 | 2,904.9 | 2,634.4 | 2,345.8 |
| Investments - investment property | 21b | 547.5 | 501.4 | 547.5 | 501.4 |
| Investments in joint ventures | 21a | 9.4 | 6.5 | 0.5 | - |
| Investments in associates | 21a | 0.5 | 0.5 | 0.9 | 0.9 |
| | | 6,528.1 | 6,106.7 | 5,935.9 | 5,535.9 |
| Current assets | | | | | |
| Stock and work in progress | 22 | 52.7 | 47.4 | 49.9 | 40.8 |
| Trade and other receivables | 23 | 463.2 | 418.2 | 469.7 | 424.2 |
| Investments | 24 | 522.0 | 498.9 | 1,100.0 | 1,063.3 |
| Cash and cash equivalents | 25 | 732.5 | 869.3 | 667.4 | 815.5 |
| | | 1,770.4 | 1,833.8 | 2,287.0 | 2,343.8 |
| Creditors: amounts falling due within one year | 26 | (1,038.7) | (1,096.8) | (1,594.7) | (1,651.3) |
| Net current assets | | 731.7 | 737.0 | 692.3 | 692.5 |
| Total assets less current liabilities | | 7,259.8 | 6,843.7 | 6,628.2 | 6,228.4 |
| Creditors: amounts falling due after more than one year | 27 | (1,001.6) | (949.6) | (991.3) | (938.3) |
| Pension liabilities | 28 | (1,088.7) | (635.1) | (1,077.6) | (631.0) |
| Other retirement benefits liabilities | 29 | (24.7) | (21.6) | (24.7) | (21.6) |
| Total net assets | | 5,144.8 | 5,237.4 | 4,534.6 | 4,637.5 |
| Restricted reserves | | | | | |
| Income and expenditure reserve - endowment | 30 | 1,971.3 | 1,855.7 | 1,673.9 | 1,561.9 |
| Income and expenditure reserve - restricted | 31 | 128.3 | 97.9 | 127.3 | 97.0 |
| Unrestricted reserves | | | | | |
| Income and expenditure reserve - unrestricted | 32 | 3,045.2 | 3,283.8 | 2,733.4 | 2,978.6 |
| Total reserves | | 5,144.8 | 5,237.4 | 4,534.6 | 4,637.5 |

The financial statements on pages 36 to 83 were approved by the Council on 25 November 2019 and signed on its behalf by:

Professor Stephen Toope
Vice-Chancellor

Mark Lewisohn
Member of Council

David Hughes
Director of Finance

Consolidated statement of cash flows

for the year ended 31 July 2019

| | Group Year ended 31 July 2019 | Group Year ended 31 July 2018 |
|-----------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| Note | £m | £m |
| Cash flow from operating activities | | |
| Surplus for the year | 117.3 | 269.6 |
| Adjustments for non-cash items: | | |
| Depreciation | 14, 19 111.7 | 94.4 |
| Amortisation of intangible assets | 18 17.0 | 33.3 |
| Gain on investments | (235.1) | (217.1) |
| Decrease / (increase) in stock and work in progress | 22 (5.3) | 2.2 |
| Increase in trade and other receivables | (45.0) | (38.1) |
| Increase in creditors | 56.7 | 23.4 |
| Revision of deficit recovery cost recognised in the year | 13, 28 230.7 | 4.5 |
| Other pension costs less contributions payable | 28 17.6 | 13.3 |
| Other retirement benefit costs less contributions payable | 29 (0.3) | (0.2) |
| Receipt of donated assets | 20 (1.4) | (3.3) |
| Currency adjustments | (1.9) | 2.9 |
| Adjustments for investing or financing activities: | | |
| Investment income | 11 (40.2) | (19.8) |
| Interest payable | 15 73.9 | 14.8 |
| New endowments | 9 (66.8) | (21.6) |
| Capital grants and donations | (107.0) | (75.6) |
| Share of joint venture and associates net surplus | 10 (1.5) | (1.9) |
| Loss / (gain) on the sale of fixed assets | 10 0.2 | (3.9) |
| Other | 3.8 | 1.8 |
| Net cash inflow from operating activities | 124.4 | 78.7 |
| Cash flows from investing activities | | |
| Capital grants and donations | 107.0 | 75.6 |
| Proceeds from sales of fixed assets | – | 8.8 |
| Proceeds of sales: North West Cambridge | 26.8 | – |
| Proceeds from sales of other non-current asset investments | 140.9 | 185.5 |
| Net acquisitions of other current asset investments | (113.1) | (12.0) |
| Investment income | 11 40.2 | 19.8 |
| Payments made to acquire intangible assets | 18 (40.3) | (20.6) |
| Payments made to acquire fixed assets | (166.9) | (230.6) |
| Payments made to acquire heritage assets | 20 – | – |
| Payments made to acquire other non-current asset investments | (269.4) | (81.2) |
| Dividend payment to non-controlling interest | 32 (1.7) | (0.5) |
| Payments made re North West Cambridge development costs | (17.8) | (48.1) |
| Net cash outflow from investing activities | (294.3) | (103.3) |
| Cash flows from financing activities | | |
| New endowments | 9 66.8 | 21.6 |
| Bond proceeds | – | 593.6 |
| Interest paid | (21.0) | (13.8) |
| Capital element of finance lease proceeds / (repayments) | 26, 27 1.3 | (1.3) |
| Repayments of loans | 26, 27 – | (1.5) |
| Net cash inflow from financing activities | 47.1 | 598.6 |
| Increase/ (reduction) in cash and cash equivalents in the year | (122.8) | 574.0 |
| Cash and cash equivalents at beginning of the year | 855.3 | 281.3 |
| Cash and cash equivalents at end of the year | 732.5 | 855.3 |
| Represented by: | | |
| Cash and cash equivalent assets | 25 732.5 | 869.3 |
| Bank overdrafts | 26 – | (14.0) |
| | 732.5 | 855.3 |

Notes to the accounts

for the year ended 31 July 2019

1. General information

The Chancellor, Masters, and Scholars of the University of Cambridge (the University) is a common law corporation, governed by its Statutes and Ordinances together with applicable United Kingdom and European Union legislation. The University is a public benefit entity and an exempt charity subject to regulation by the Office for Students (OfS) and formerly the Higher Education Funding Council for England (HEFCE) under the Charities Act 2011.

The contact address is: University of Cambridge, The Old Schools, Trinity Lane, Cambridge, CB2 1TN, UK.

The principal activities of the University and its subsidiary undertakings are teaching, research, and related activities which include: publishing services; examination and assessment services; the operation of museums, libraries, and collections; and the commercialisation of intellectual property generated within the University.

2. Statement of compliance

The financial statements have been prepared in accordance with Financial Reporting Standard 102, The Financial Reporting Standard applicable in the United Kingdom and the Republic of Ireland (FRS 102), including the public benefit entity requirements of FRS 102, and the Statement of Recommended Practice: Accounting for Further and Higher Education 2015 (the SORP).

The statement of comprehensive income includes captions additional to those specified by the SORP in order to present an appropriate overview for the specific circumstances of the University.

3. Statement of significant accounting policies

(a) Basis of preparation

The financial statements have been prepared under the historical cost

convention, as modified by the recognition of certain financial assets and liabilities measured at fair value.

The Group has taken advantage of exemptions in FRS 102:

- from preparing a statement of cash flows for the University, on the basis that it is a qualifying entity and the consolidated statement of cash flows, included in these financial statements, includes the University's cash flows; and
- from the financial instrument disclosures required under FRS 102 paragraphs 11.39 to 11.48A and paragraphs 12.26 to 12.29, in relation to the University, as the information is provided in the consolidated financial statement disclosures.

The preparation of financial statements requires judgement in the process of applying the accounting policies and the use of accounting estimates. Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements, are discussed at the end of these policies.

(b) Going concern

The Council has a reasonable expectation that the University has adequate resources to continue to operate for the foreseeable future. In forming this view the Council notes that the University:

- undertakes a robust and detailed annual business planning and budgeting process, including preparation of a five-year financial sustainability review in line with OfS guidance and as such the going concern nature

of the University has been considered for a period of greater than twelve months from the date of approval of the financial statements;

- applies prudent financial and cash management in order to ensure that its day-to-day working capital needs can be met out of cash and liquid investments; and
- has considered the potential impact of credit risk and liquidity risk detailed in Note 38.

For these reasons, the University continues to adopt the going concern basis in preparing its financial statements.

(c) Basis of consolidation

The consolidated financial statements include the University and its subsidiary undertakings, details of which are given in Note 35. Intra-group transactions and balances are eliminated on consolidation.

The results of subsidiaries acquired or disposed of in the current or prior years are consolidated for the periods from or to the date on which control passed. The acquisition method of accounting has been adopted for subsidiary undertakings. Amounts attributable to non-controlling interests represent the share of profits on ordinary activities attributable to the interest of equity shareholders in subsidiaries which are not wholly owned by the University.

The University accounts for its share of joint ventures using the equity method. A joint venture is an entity in which the University, or its subsidiaries, holds an interest on a long-term basis and is jointly controlled by the University or its subsidiaries and one or more other entities under a contractual agreement.

The University accounts for jointly controlled assets and operations

based upon its share of costs incurred and recognises its share of liabilities incurred. Income and expenditure is recognised based upon the University's share.

Investments in subsidiaries and joint ventures are accounted for at the lower of cost or net realisable value.

The consolidated financial statements do not include the accounts of the 31 Colleges in the University ('the Colleges'), each of which is an independent corporation. Transactions with the Colleges are disclosed in Note 37.

The consolidated financial statements do not include the accounts of Cambridge University Students' Union or of Cambridge University Graduate Union, as these are separate bodies in which the University has no financial interest and over whose policy decisions it has no control.

(d) Foreign currencies

The Group's financial statements are presented in pounds sterling and in millions.

Transactions denominated in foreign currencies are recorded at the rate of exchange ruling at the date of the transactions. Where foreign branches and subsidiary undertakings accounting in foreign currencies operate as separate businesses, all their assets and liabilities are translated into sterling at year-end rates and the net effect of currency adjustments is included in other comprehensive income. Otherwise, monetary assets and liabilities denominated in foreign currencies are translated into sterling at year-end rates and translation differences are included in income or expenditure.

(e) Recognition of income

Revenue

Income arising from the sale of goods or the provision of services is recognised in income on the

exchange of the relevant goods or services and where applicable is shown net of value added taxes, returns, discounts and rebates as appropriate. In particular:

Tuition fees and education contracts

Tuition fees for degree courses are charged to students by academic term. Income is recognised for academic terms falling within the period. For short courses, income is recognised to the extent that the course duration falls within the period. Professional course fees and other educational contract revenues are recognised in line with the stage of completion/degree of provision of the service, as determined on an appropriate basis for each contract.

Examination and assessment services

Income from examination session-based assessments is recognised when services are rendered and substantially complete. Income from qualifications not based on examination sessions is recognised in proportion to the number of modules required for the qualification that has been achieved by candidates.

Publishing services

Income is recognised when: (a) the significant risks and rewards of ownership have been transferred to the buyer; (b) the Press retains no continuing involvement or control over the goods; (c) the amount of revenue can be measured reliably; (d) it is probable that future economic benefits will flow to the Press; and (e) when the specific criteria relating to each of the relevant sales channels have been met. In the case of books, income is recognised upon delivery of goods to the customer. For materials supplied permanently, whether by way of print or perpetual electronic access, income is recognised when

the material is first made available to the customer. Subscriptions income including journals is recognised evenly over the subscription period. For service offerings, income is recognised evenly as the service is delivered.

Rights and permissions income is recognised on a cash receipt basis. Income in respect of certain co-publishing arrangements is recognised upon the printing of content by the co-publishing partner. Income in respect of project-based contract work is recognised on the basis of progress (percentage of completion), being the ratio of costs incurred at the measurement date and the total expected costs for the programme. In a multiple component arrangement, in the event certain components remain undelivered or incomplete, income is recognised on the fair value of the components delivered, subject to specific conditions being met.

Grant income

All grant funding, including OfS and HEFCE grants, research grants, and capital grants, from government and other sources, is recognised in income when the University is entitled to the funding and any performance-related conditions have been met. Performance conditions are defined as 'a condition that requires the performance of a particular level of service or units of output to be delivered, with payment of, or entitlement to, the resources conditional on that performance'. Income received in advance of performance-related conditions being met is recognised as deferred income within creditors on the balance sheet and released to income as the conditions are met. Research and development expenditure credits receivable from HM Revenue & Customs are recognised as income when the relevant expenditure has been incurred and there is reasonable

assurance of receipt.

Donations and endowments

Donations and endowments are recognised in income when the University is entitled to the funds. In the majority of cases this is the point at which the cash is received, although in the case of capital and particularly building donations or endowments this is in line with expenditure incurred under the agreement or delivery of specified milestones within the donation agreement.

Donations are credited to endowment reserves, restricted reserves, or unrestricted reserves depending on the nature and extent of restrictions specified by the donor.

Donations with no substantial restrictions are included in unrestricted reserves.

Donations which are to be retained for the future benefit of the University are included in endowment reserves. Endowment funds are classified under three headings:

- Where the donor has specified that the fund is to be permanently invested to generate an income stream for the general purposes of the University, the fund is classified as an unrestricted permanent endowment.
- Where the donor has specified that the fund is to be permanently invested to generate an income stream to be applied for a restricted purpose, the fund is classified as a restricted permanent endowment.
- Where the donor has specified a particular objective other than the acquisition or construction of tangible fixed assets, and that the University must or may convert the donated sum into income, the fund is classified as a restricted expendable endowment.

Other donations with substantially restricted purposes are included in restricted reserves until such time as the restrictions have been met.

Investment income

Investment income is recognised in income in the period in which it is earned.

(f) Employee benefits

Short-term benefits

Short-term employment benefits including salaries and compensated absences are recognised as an expense in the period in which the service is rendered to the University. A liability is recognised at each balance sheet date for unused employee holiday allowances with the corresponding expense recognised in staff costs in the statement of comprehensive income.

Pension costs

The Group contributes to a number of defined benefit pension schemes for certain employees. The two principal pension schemes for the University's staff are the Cambridge University Assistants' Contributory Pension Scheme (CPS) and the Universities Superannuation Scheme (USS). Cambridge University Press operates two pension schemes for its UK staff, the Press Contributory Pension Fund (PCPF) and the Press Senior Staff Pension Scheme (PSSPS). A defined benefit scheme defines the pension benefit that an employee will receive on retirement, dependent upon several factors including length of service and remuneration.

- (i) Where the University is unable to identify its share of the underlying assets and liabilities in a multi-employer scheme on a reasonable and consistent basis, it accounts as if the scheme were a defined contribution scheme, so that the cost is equal to the total of contributions payable in the year. Where the University has entered into an agreement with such a multi-employer scheme that

determines how the University will contribute to a deficit recovery plan, the University recognises a liability for the contributions payable that arise from the agreement, to the extent that they relate to the deficit, and the resulting expense is recognised in expenditure.

(ii) For other defined benefit schemes, the net liability recognised in the balance sheet in respect of each scheme is the present value of the defined benefit obligation at the reporting date less the fair value of the plan assets at the reporting date.

The defined benefit obligation is calculated using the projected unit credit method. Annually the Group engages independent actuaries to calculate the obligation for each scheme. The present value is determined by discounting the estimated future payments at a discount rate based on market yields on high quality corporate bonds denominated in sterling with terms approximating to the estimated period of the future payments.

The fair value of a scheme's assets is measured in accordance with the FRS 102 fair value hierarchy and in accordance with the Group's policy for similarly held assets. This includes the use of appropriate valuation techniques.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to other comprehensive income. These amounts together with the return on plan assets, less amounts included in net interest, are disclosed as actuarial gains and losses.

The cost of the defined benefit plan, recognised in expenditure as staff costs, except where included in the cost of an asset, comprises the increase in pension benefit liability arising from employee

service during the period and the cost of plan introductions, benefit changes, curtailments and settlements. The net interest cost is calculated by applying the discount rate to the net liability. This cost is recognised in expenditure as a finance cost.

Further detail is provided on the specific pension schemes in Note 34 to the Accounts.

(g) Taxation

The University has charitable status as one of the exempt charities listed in Schedule 3 to the Charities Act 2011. As such it is listed as a charity within the meaning of Paragraph 1 of Schedule 6 to the Finance Act 2010. Accordingly the University is potentially exempt from Corporation Tax on income and gains falling within section 287 of the Corporation Tax Act (CTA) 2009 and sections 471 and 478-488 CTA 2010 or section 256 of the Taxation and Chargeable Gains Tax Act 1992 to the extent that such income or gains are applied to exclusively charitable purposes.

Most of the University's principal activities are exempt from Value Added Tax (VAT), but certain activities and other ancillary supplies and services are liable to VAT at various rates. Expenditure includes VAT charged by suppliers to the University where it is not recoverable and is likewise included in the cost of fixed assets.

Commercial trading activities undertaken by the University are operated through its subsidiary companies. This income will attract applicable VAT and the profits are liable to Corporation Tax. However, the taxable profits made by these companies are covenanted to the University and paid under Gift Aid, to the extent that the companies have distributable reserves, which negates the liability. However, commercial activity undertaken outside the UK may be subject to tax in these jurisdictions.

The publishing, examination and assessment activities have current tax which is wholly composed of non-UK tax payable (or recoverable) in respect of taxable profit or loss for the year or prior year. Tax is calculated on the basis of tax rates and laws that have been enacted or substantially enacted by the year-end. Deferred tax arises from timing differences between taxable profits and total comprehensive income as stated in the financial statements. These timing differences arise from the inclusion of income and expenses in tax assessments in periods different from those in which they are recognised in the financial statements. Deferred tax is recognised on all timing differences at the balance sheet date. Unrelieved tax losses and other deferred tax assets are only recognised when it is probable that they will be recovered against the reversal of deferred tax liabilities or other future taxable profits.

(h) Intangible assets and goodwill

Software's development and acquisition costs are capitalised and amortised on a straight line basis over its estimated useful life of between four and ten years.

Goodwill arises on consolidation and is based on the fair value of the consideration given for the subsidiary and the fair value of its assets at the date of acquisition. Goodwill is amortised over its estimated economic life of between five and ten years on a straight line basis.

The carrying value of intangible assets including goodwill is considered in light of events or changes in circumstances which may indicate that the carrying value may not be recoverable. Where there is impairment in the carrying value of these assets, the loss is included in the results of the period.

(i) Fixed assets

Land and buildings

Operational land and buildings are included in the financial statements using the FRS 102 fair value at 1 August 2014 as deemed cost, with subsequent additions at cost.

No depreciation is provided on freehold land. Freehold buildings are written off on a straight line basis over their estimated useful lives, which are between 15 and 60 years, and leasehold properties are written off over the length of the lease.

Assets under construction

Assets under construction are stated at cost. These assets are not depreciated until they are available for use. Financing costs are not capitalised as part of additions to fixed assets.

Equipment

Equipment costing less than £30,000 per individual item is typically written off in the year of purchase. All other equipment is capitalised and depreciated so that it is written off on a straight line basis over its estimated useful life of between three and ten years.

(j) Heritage assets

The University holds and conserves a number of collections, exhibits, artefacts, and other assets of historical, artistic, or scientific importance. Heritage assets acquired before 1 August 1999 have not been capitalised, since reliable estimates of cost or value are not available on a cost-benefit basis. Acquisitions since 1 August 1999 have been capitalised at cost or, in the case of donated assets, at expert valuation on receipt. In line with the accounting policy in respect of equipment, the threshold for capitalising assets is £30,000. Heritage assets are not depreciated since their long economic life and high residual value mean that any depreciation would not be material.

(k) Investments

Non-current investments are included in the balance sheet at fair value, except for investments in

subsidiary undertakings and joint ventures which are stated in the University's balance sheet at cost and eliminated on consolidation. All gains and losses on investment assets are recognised in the statement of comprehensive income as they accrue.

Other investments

Marketable securities are valued at midmarket valuation on 31 July. Investments in spin-out companies are valued in accordance with the International Private Equity and Venture Capital Guidelines, and other non-marketable securities are included at valuation by the Council. Current asset investments are included in the balance sheet at the lower of cost and net realisable value.

Investment properties

A property will be deemed an investment property by the University if the following conditions are met:

- The University's core objective remains delivering excellence in teaching and research, and not in the provision of accommodation;
- The properties are designed to generate long-term financial returns through rental and capital appreciation;
- Any associated rental model is market-linked and rentals are not substantially below market levels;
- The University retains a degree of choice over tenants; and
- The properties are not deemed to be social housing.

After initial recognition at cost, investment property shall be measured at fair value at each reporting date with changes in fair value recognised in the statement of comprehensive income.

The investment property portfolio has been categorised into the

following components:

- Shared equity properties: these properties will be valued annually by an external valuer with full site valuations being carried out on a five-year rolling basis with an appropriate indexation being applied to those properties not visited in-year;
- Residential and non-residential rental properties: for those properties which are under £500k in value they will be valued by chartered surveyors employed by the University on the basis of estimated open market values on an existing use basis. For properties with values in excess of £500k they will also be valued on an open market value basis but by an external valuer; and
- North West Cambridge development: Phase 1 which is essentially complete is valued annually by an external valuer based on estimated open market values. Subsequent phases, which currently reflect land values only, will also be valued annually taking into account any planning permission attributed to the land as well as determining any aspect of the assets which may be assigned for the University's own use. To the extent that the University has assigned property for its own use then it will be valued at cost. Once subsequent phased construction commences it is intended to value the property at open market value for the land plus the associated costs of construction. An annual impairment review will be carried out to ensure that the updated land value plus the additional costs of construction are not in aggregate valued in excess of any projected discounted cash flows to be derived from those assets.

(l) Stock and work in progress

Stock is stated at the lower of cost and net realisable value after making provision for slow-moving and obsolete items. In respect of publishing services, (a) direct costs incurred prior to publication are included in current assets where the title will generate probable future economic benefits and costs can be measured reliably.

These costs are amortised upon publication of the title over the estimated useful life of the product (Academic products over 18 months and Learning products over 36 months): (b) the University makes full provision against the cost of stock in excess of one-and-a-half times the previous year's sales on all inventory aged 24 months since the publication date; and (c) provision for impairment of accumulated pre-publication costs is made based on recoverability of unamortised pre-publication costs.

(m) Cash and cash equivalents

Cash includes cash in hand, cash at bank, deposits repayable on demand, and bank overdrafts. Deposits are repayable on demand if they are in practice available on call without penalty. Bank overdrafts are shown within borrowings in current liabilities. Cash equivalents are short-term (typically with less than three months' notice required) highly liquid investments which are readily convertible into cash and include deposits and other instruments held as part of the University's treasury management activities.

(n) Financial instruments

The University has elected to adopt Sections 11 and 12 of FRS 102 in respect of the recognition, measurement, and disclosure of financial instruments.

Financial assets

Basic financial assets include trade and other receivables, cash and cash equivalents. These assets are

initially recognised at transaction price unless the arrangement constitutes a financing transaction, where the transaction is measured at the present value of the future receipts discounted at a market rate of interest. Such assets are subsequently carried at amortised cost using the effective interest rate method. Financial assets are assessed for indicators of impairment at each balance sheet date. If there is objective evidence of impairment, an impairment loss is recognised in the statement of comprehensive income.

For financial assets carried at amortised cost the impairment loss is the difference between the carrying amount of the asset and the present value of the estimated future cash flows, discounted at the asset's original effective interest rate.

Other financial assets, including investments in equity instruments which are not subsidiaries, associates, or joint ventures, are initially measured at fair value, which is typically the transaction price. These assets are subsequently carried at fair value and changes in fair value at the reporting date are recognised in the statement of comprehensive income. Where the investment in equity instruments is not publicly traded and where the fair value cannot be reliably measured the assets should be measured at cost less impairment.

Financial assets are de-recognised when the contractual rights to the cash flows from the asset expire or are settled or substantially all of the risks and rewards of ownership of the asset are transferred to another party.

Financial liabilities

Basic financial liabilities include trade and other payables, bank loans and inter-group loans. These liabilities are initially recognised at transaction price unless the arrangement constitutes a financing transaction, where the debt instrument is

measured at the present value of the future payments discounted at a market rate of interest. Debt instruments are subsequently carried at amortised cost using the effective interest rate method.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down.

The University has debt instruments through:

- long-term unsecured fixed interest Bonds issued in October 2012 and June 2018 and listed on the London Stock Exchange. The Bonds were initially measured at the proceeds of issue less all transaction costs directly attributable to the issue. After initial recognition, the Bonds are measured at amortised cost using the effective interest rate method. Under this method the discount at which the Bonds were issued and the transaction costs are accounted for as additional expense over the term of the Bonds (see Note 27); and
- long-term unsecured CPI-linked Bonds issued in June 2018 and listed on the London Stock Exchange. These Bonds are deemed to be complex financial instruments and so are initially recognised at fair value at the transaction date and subsequently re-measured to their fair value at the reporting date. For financial instruments that are subsequently re-measured at fair value through profit or loss, transaction costs (net of any fees paid or received) are not added to or deducted from the amount initially recognised, instead they are expensed immediately on initial recognition.

Trade payables are obligations to pay for goods and services that have

been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities.

Derivatives, including forward foreign exchange contracts, are not basic financial instruments. Derivatives are initially recognised at fair value on the date the derivative contract is entered into and are subsequently re-measured at their fair value at the reporting date. Changes in the fair value of derivatives are recognised in the statement of comprehensive income in finance costs or finance income as appropriate, unless they are included in a hedging arrangement.

To the extent that the University enters into forward foreign exchange contracts which remain unsettled at the balance sheet date the fair value of the contracts is reviewed at that date. The initial fair value is measured as the transaction price on the date of inception of the contracts. Subsequent valuations are considered on the basis of the forward rates for those unsettled contracts at the balance sheet date. The University does not apply hedge accounting in respect of forward foreign exchange contracts held to manage cash flow exposures of forecast transactions denominated in foreign currencies.

Financial liabilities are de-recognised when the liability is discharged, cancelled, or expires.

(o) Related party transactions

The University discloses transactions with related parties which are outlined in detail in Note 36 to the Accounts.

(p) Segment information

The Group operates in a number of different classes of business. For the purpose of segmental reporting, classes of business have been identified by reference to the nature

of activity, the nature of funding, and the management organisation (see Note 17).

(q) Lease commitments

The Group assesses agreements that transfer the right to use assets. Leases are classified as finance leases if they transfer substantially all the risks and rewards incidental to ownership of an asset. The assessment considers whether the arrangement is, or contains, a lease based on the substance of the arrangement.

Leases that do not transfer all the risks and rewards of ownership are classified as operating leases. Payments under operating leases are charged to the income statement on a straight line basis over the period of the lease.

4. Critical accounting judgements, estimates, and assumptions

Management is required to adopt those accounting policies most appropriate to the circumstances for the purposes of presenting fairly the Group's financial position, financial performance, and cash flows. The preparation of the Group and University's financial statements requires management to make judgements, estimates, and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. These judgements, estimates, and associated assumptions are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results and may lead to adjustments to the future carrying value of assets and liabilities.

(a) Critical judgements in applying the Group's accounting policies

(i) Revenue recognition

Revenues, particularly donations

and grant income, are subject to judgement over when and by how much revenues should be recognised in the financial statements. This includes determining when entitlement arises such as performance conditions being met, recognising research and other funding revenues in line with expenditure once a right to the funding is deemed to have arisen, and determining the revenues associated with partially delivered courses and training where the activities have not been fully completed at the reporting date.

(b) Key accounting estimates and assumptions

(i) Depreciation and amortisation

The depreciation and amortisation expense is the recognition of the use of the asset over its estimated useful life. Management determines the estimated useful lives of the assets and associated residual values which may be impacted by changes in economic or technological circumstances.

(ii) Impairment

Annually, the Group considers whether tangible or intangible assets are impaired at the balance sheet date. Where an indication of impairment is identified the estimation of the recoverable value requires an estimation of the recoverable value of the cash generating units (CGUs). This requires estimation of the future cash flows from the CGUs and also selection of appropriate discount rates in order to calculate the net present value of those cash flows.

(iii) Investment valuations (Note 11)

The Cambridge University Endowment Fund (CUEF) is comprised of a range of asset investment categories where there is not always a clearly observable valuation basis available.

Investments which are not listed or which are not frequently traded are stated at the Valuation Committee's best estimate of fair value. With respect to investments held through pooled funds or partnerships, reliance is placed on unaudited valuations of the underlying listed and unlisted investments as supplied to the CUEF custodian by the administrators of those funds or partnerships. The principles applied by the administrators to those valuations are reviewed to ensure they are in compliance with CUEF policies. With respect to other investments, recognised valuation techniques are used, that may take account of any recent arm's length transactions in the same or similar investment instruments. Where however no reliable fair value can be estimated, investments are stated at cost.

(iv) Valuation of investment properties

Properties held for investment purposes are revalued annually by accredited valuers typically on the basis of estimated open market values on an existing use basis. Such valuations are based on assumptions and estimates including rental growth projections, discount rates, future cash flows and associated expenditure which are impacted by a variety of factors including changes in market and other economic conditions which may have a material impact on the annual valuations.

(v) Defined benefit pension schemes and funding of pension deficits (Note 28)

The University has obligations to pay pension benefits to certain employees. The cost of these benefits and the present value of the obligation depend on a number of factors including: life expectancy; salary increases; asset valuations; and the discount rate

on corporate bonds. Based on actuarial advice provided, management estimates these factors to determine the net pension obligation in the balance sheet.

Additionally, the University currently recognises a provision for its obligation to fund past deficits arising within the Universities Superannuation Scheme (USS). Management is satisfied that the USS meets the definition of a multi-employer scheme and has therefore recognised the discounted fair value of the contractual contributions under the recovery plan in existence at the balance sheet date. The deficit recovery plan relates to the 2017 actuarial valuation. However, since the year end following completion of the 2018 actuarial valuation, a new deficit recovery plan has been agreed which will result in a significant change to the future carrying value of the liability. Whilst this change will not be reflected through the financial statements until 2019-20, the financial impact of the new deficit recovery plan has been disclosed in more detail in Note 34.

(vi) Provisions

General and specific provisions are made for stock obsolescence including slow-moving or defective items and bad debts based on a combination of management's best estimates, historical experience, customer and product specific knowledge, and formula-based calculations.

Notes to the accounts for the year ended 31 July 2019 (continued)

| | Group | Group | University | University |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|-------------------|------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £m | £m | £m | £m |
| 5 Tuition fees and education contracts | | | | |
| Full-time home / EU students | 131.6 | 129.2 | 131.6 | 129.2 |
| Full-time overseas (non-EU) students | 120.0 | 105.8 | 120.0 | 105.8 |
| Other course fees | 37.0 | 30.9 | 22.9 | 18.8 |
| Research Training Support Grants | 31.6 | 29.2 | 31.6 | 29.2 |
| | 320.2 | 295.1 | 306.1 | 283.0 |
| 6 Funding body grants | | | | |
| Office for Students (OfS) | | | | |
| Recurrent grant: teaching | 18.1 | 18.0 | 18.1 | 18.0 |
| Recurrent grant: research | 124.4 | 121.7 | 124.4 | 121.7 |
| Recurrent grant: museum funding | 2.1 | 2.1 | 2.1 | 2.1 |
| Other revenue grants | 10.7 | 8.3 | 10.7 | 8.3 |
| Total revenue grants | 155.3 | 150.1 | 155.3 | 150.1 |
| Capital grants recognised in the year | 26.6 | 23.5 | 26.6 | 23.5 |
| | 181.9 | 173.6 | 181.9 | 173.6 |
| 7 Research grants and contracts | | | | |
| Research councils | 216.6 | 174.9 | 216.6 | 174.9 |
| UK-based charities | 160.6 | 152.7 | 160.5 | 152.5 |
| European Commission | 60.8 | 56.0 | 60.8 | 56.0 |
| UK industry | 24.5 | 21.0 | 23.4 | 19.6 |
| UK government | 45.7 | 49.0 | 45.4 | 48.7 |
| Other bodies | 84.2 | 71.3 | 76.2 | 63.8 |
| | 592.4 | 524.9 | 582.9 | 515.5 |
| Total research grants and contracts income includes grants of £63.5m (2018: £20.1m) towards the cost of buildings and £17.1m (2018: £22.2m) for the purchase of equipment. | | | | |
| 8 Examination and assessment services | | | | |
| Examination fees | 431.3 | 386.0 | 348.1 | 315.8 |
| Other examination and assessment services | 47.2 | 46.5 | 45.6 | 44.6 |
| | 478.5 | 432.5 | 393.7 | 360.4 |
| 9 Donations and endowments | | | | |
| New endowments | 66.8 | 21.6 | 66.1 | 21.6 |
| Donations of, and for the purchase of, fixed assets | (0.2) | 6.6 | (0.2) | 6.6 |
| Donations of, and for the purchase of, heritage assets | 1.4 | 3.0 | 1.4 | 3.0 |
| Other donations with restrictions | 21.7 | 23.0 | 20.9 | 14.5 |
| Donations from subsidiary companies | - | - | 19.9 | 7.6 |
| Unrestricted donations | 21.7 | 9.6 | 13.0 | 9.6 |
| | 111.4 | 63.8 | 121.1 | 62.9 |
| Included within donations from subsidiary companies is £0.7m (2018: £0.8m) relating to capital donations received for the purchase of fixed assets. | | | | |

| | Group | Group | University | University |
|---------------------------------------------------------------------------------------|--------------|-------|-------------------|------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £m | £m | £m | £m |
| 10 Other income | | | | |
| Other services rendered | 55.7 | 48.9 | 44.8 | 40.8 |
| Health and hospital authorities | 21.2 | 20.4 | 21.2 | 20.4 |
| Residences, catering, and conferences | 12.8 | 11.8 | 12.7 | 11.8 |
| Income from intellectual property | 5.9 | 12.0 | 4.4 | 4.2 |
| Rental income | 21.2 | 15.7 | 19.5 | 15.4 |
| Grants received (other than those included in Notes 6 and 7) | 4.1 | 5.2 | 2.2 | 3.8 |
| Research and Development Expenditure Credit (RDEC) receivable before deduction of tax | - | 0.6 | - | 0.6 |
| Surplus / (loss) on disposal of fixed assets | (0.2) | 3.9 | (0.2) | 3.9 |
| Share of operating surplus in joint ventures and associates | - | 1.9 | - | - |
| Sundry income | 12.7 | 21.7 | 24.0 | 26.3 |
| | 133.4 | 142.1 | 128.6 | 127.2 |

Other services rendered includes externally generated sales across a wide variety of activities such as University staff and equipment charged out on external projects, the provision of veterinary services, farming sales (crop and milk), and restoration services.

RDEC has previously been claimed from HM Revenue & Customs at a rate of 10% or 11% on qualifying research and development expenditure, and is received net of Corporation Tax (see Note 16). The University is not eligible to claim for RDEC in relation to expenditure incurred on or after 1 August 2015. No further income has been received during the year.

For the year ended 31 July 2019 the share of operating surplus in joint ventures and associates has been re-presented and disclosed on the face of the statement of comprehensive income to align with the HEI SORP disclosure requirements. The comparative has not been restated on the basis of materiality.

11 Investment income

The majority of investment income relates to investment returns generated by the Cambridge University Endowment Fund (CUEF). The CUEF is a unitised fund constituted by Trust Deed with the University as sole trustee holding the property of the CUEF on trust for unit holders. Unit holders are the University, a number of its subsidiary undertakings and also UK charities associated with the University (such as Colleges and trusts) provided they meet the necessary eligibility requirements. The University operates the fund through its wholly-owned subsidiary, Cambridge Investment Management Limited, to deliver long-term investment in respect of individual restricted endowments and other balances. The CUEF is managed on a total return basis (i.e. income and net capital gains) and invests in asset classes some of which generate little or no income. Distributions are made to unit holders according to a formula which has regard to the total return reasonably to be expected in the long term, in proportion to the number of units held. Unit holders receive distributions as income.

However, the distributions made to unit holders are funded through both investment income generated on the underlying CUEF assets and an element by drawing on the long-term capital growth of the investments. Accordingly, for the purposes of reporting in the financial statements, it is only the investment income (dividends, interest, rental income etc.) received on the underlying CUEF assets which is treated as investment income. The distributions relating to capital growth are reflected in the statement of comprehensive income as a 'gain on investments' and in the balance sheet in non-current asset investments, 'valuation gain on investment'. For the year ended 31 July 2019 distributions by the CUEF which were funded by drawing on the long-term capital gain in the investments were £90.3m (2018: £79.1m) with the balance of the distributions funded by and reported as investment income. This split is outlined in more detail below:

| | Group | Group | University | University |
|----------------------------------------------------------------------------------------|---------------|--------|-------------------|------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £m | £m | £m | £m |
| Investment income from the CUEF: | | | | |
| Distributions credited to unit holders as income | 105.0 | 97.0 | 85.0 | 73.5 |
| Less: distributed from long-term capital gain | (90.3) | (79.1) | (73.1) | (63.5) |
| Investment income on underlying assets reported per the financial statements | 14.7 | 17.9 | 11.9 | 10.0 |
| Income from other investments including current asset investments and cash equivalents | 25.5 | 1.9 | 10.7 | 6.3 |
| Net investment income | 40.2 | 19.8 | 22.6 | 16.3 |

Notes to the accounts for the year ended 31 July 2019 (continued)

11 Investment income (continued)

Credited to:

| Group | Total Investment Income | Amounts distributed from capital | Net Investment income | Net Investment income |
|-------------------------------|-------------------------|----------------------------------|-----------------------|-----------------------|
| | 2019 £m | 2019 £m | 2019 £m | 2018 £m |
| Permanent endowment reserves | 45.9 | (37.9) | 8.0 | 2.5 |
| Expendable endowment reserves | 18.4 | (16.4) | 2.0 | 2.9 |
| Restricted reserves | 1.3 | (1.0) | 0.3 | 0.3 |
| Unrestricted reserves | 64.9 | (35.0) | 29.9 | 14.1 |
| | 130.5 | (90.3) | 40.2 | 19.8 |
| University | | | | |
| Permanent endowment reserves | 45.2 | (37.7) | 7.5 | 2.4 |
| Expendable endowment reserves | 8.4 | (7.8) | 0.6 | 1.4 |
| Restricted reserves | 1.3 | (1.0) | 0.3 | 0.3 |
| Unrestricted reserves | 40.8 | (26.6) | 14.2 | 12.2 |
| | 95.7 | (73.1) | 22.6 | 16.3 |

Further details on the asset categories held by the CUEF are outlined below:

| | 31 July 2019 | | 31 July 2018 | |
|-----------------------|----------------|---------------|--------------|--------|
| | £m | % | £m | % |
| Public equity | 2,078.1 | 60.1% | 1,887.6 | 58.1% |
| Private investment | 444.4 | 12.9% | 297.0 | 9.1% |
| Absolute return | 294.9 | 8.5% | 309.1 | 9.5% |
| Credit | 181.8 | 5.3% | 183.3 | 5.6% |
| Real assets | 304.6 | 8.8% | 348.9 | 10.7% |
| Fixed interest / cash | 152.1 | 4.4% | 226.9 | 7.0% |
| Total value of fund | 3,455.9 | 100.0% | 3,252.8 | 100.0% |

Public equity includes all equity stocks traded on a liquid market, together with related non-publicly traded index funds and derivatives.

Private investment includes investments where initial capital commitments are drawn down over a period, and the proceeds of the investments once disposed of are returned over the life of each fund. The underlying investments include both unlisted equities and corporate credits (such as bonds, loans, and other claims).

Absolute return includes investments in trading strategies which are in some degree independent of overall equity market movements. Funds where different equities are simultaneously held (long) and sold (short) are included in this category.

Credit includes corporate securities (such as bonds and loans) traded on a liquid public market.

Real assets includes investments which are expected in some degree to increase in nominal value to match inflation. This category includes commercial property, and securities which reflect the level of commodity values. Inflation-linked government securities are, however, included in the fixed interest category below.

Fixed interest / cash includes cash at bank and on deposit, government securities, the net value of foreign currency contracts and any amounts receivable in general, less amounts payable, including those arising from holding derivative contracts.

11 Investment income (continued)

The assets of the CUEF are included in the following balance sheet captions in proportion to the number of units held by the relevant funds:

| | Group 2019 £m | Group 2018 £m | University 2019 £m | University 2018 £m |
|-----------------------------------------------------------------------|------------------------------------------|---------------------|-----------------------------------------------|--------------------------|
| Non-current asset investments (see Note 21) | 3,108.0 | 2,824.6 | 2,530.0 | 2,260.2 |
| Current asset investments (see Note 24) - balances held on behalf of: | | | | |
| Subsidiary undertakings | – | – | 578.0 | 564.4 |
| Colleges | 334.3 | 411.6 | 334.3 | 411.6 |
| Other associated bodies | 13.6 | 16.6 | 13.6 | 16.6 |
| Total included in current asset investments | 347.9 | 428.2 | 925.9 | 992.6 |
| Total value of units | 3,455.9 | 3,252.8 | 3,455.9 | 3,252.8 |

12 Total income

Consolidated total income of £2,192.0m (2018: £1,964.8m) is credited to reserves as follows:

| | Group year ended 31 July 2019 | | | Group year ended 31 July 2018 | | |
|-----------------------------------------------------------|--------------------------------------|--------------------------------|----------------------------------|-------------------------------|------------------|--------------------|
| | Endowments £m | Restricted £m | Unrestricted £m | Endowments £m | Restricted £m | Unrestricted £m |
| Tuition fees and education contracts | – | – | 320.2 | – | – | 295.1 |
| Funding body grants | – | 26.6 | 155.3 | – | 23.5 | 150.1 |
| Research grants and contracts | – | 83.4 | 509.0 | – | 38.5 | 486.4 |
| Research and Development Expenditure Credit receivable | – | – | – | – | – | 0.6 |
| Examination and assessment services | – | – | 478.5 | – | – | 432.5 |
| Publishing services | – | – | 334.0 | – | – | 313.0 |
| Donations and endowments | 66.8 | 30.4 | 14.2 | 21.6 | 33.2 | 9.0 |
| Other income | – | 4.1 | 129.3 | – | 5.2 | 136.9 |
| Investment income | 10.0 | 0.3 | 29.9 | 5.4 | 0.3 | 13.5 |
| | 76.8 | 144.8 | 1,970.4 | 27.0 | 100.7 | 1,837.1 |

Consolidated total income of £2,192.0m (2018: £1,964.8m) is attributable as follows to the three broad categories defined by FRS 102: revenue, government grants, and non-exchange transactions:

| | Revenue | | | Government grants | | | Non-exchange transactions | | |
|-----------------------------------------------------------|-----------------------------|---------------------------------------|-----------------------------------------------|--------------------------|-------------------------|---------------------------------|----------------------------------|-------------------------|---------------------------------|
| | Revenue £m | Government grants £m | Non-exchange transactions £m | Revenue £m | Government grants £m | Non-exchange transactions £m | Revenue £m | Government grants £m | Non-exchange transactions £m |
| Tuition fees and education contracts | 288.6 | 31.6 | – | 265.9 | 29.2 | – | 265.9 | 29.2 | – |
| Funding body grants | – | 181.9 | – | – | 173.6 | – | – | 173.6 | – |
| Research grants and contracts | – | 323.1 | 269.3 | – | 279.9 | 245.0 | – | 279.9 | 245.0 |
| Research and Development Expenditure Credit receivable | – | – | – | – | 0.6 | – | – | 0.6 | – |
| Examination and assessment services | 478.5 | – | – | 432.5 | – | – | 432.5 | – | – |
| Publishing services | 334.0 | – | – | 313.0 | – | – | 313.0 | – | – |
| Donations and endowments | – | – | 111.4 | – | – | 63.8 | – | – | 63.8 |
| Other income | 116.8 | 4.1 | 12.5 | 108.8 | 5.2 | 27.5 | 108.8 | 5.2 | 27.5 |
| Investment income | 40.2 | – | – | 19.8 | – | – | 19.8 | – | – |
| | 1,258.1 | 540.7 | 393.2 | 1,140.0 | 488.5 | 336.3 | 1,140.0 | 488.5 | 336.3 |

Notes to the accounts for the year ended 31 July 2019 (continued)

13 Staff costs

| | Group 2019 £m | Group 2018 £m | University 2019 £m | University 2018 £m |
|-----------------------------------------------------------------------------------------------------|---------------------|---------------------|--------------------------|--------------------------|
| Wages and salaries | 711.9 | 640.1 | 642.1 | 587.3 |
| Social security costs | 60.6 | 67.7 | 58.7 | 63.0 |
| Pension costs: | | | | |
| Current service cost | 131.6 | 145.3 | 128.5 | 139.6 |
| Past service cost | 5.8 | – | 5.8 | – |
| Net change in underlying assumptions in calculating USS deficit recovery provision (see Note 28) | 225.1 | (3.5) | 218.6 | (2.5) |
| Total pension costs (see Note 34) | 362.5 | 141.8 | 352.9 | 137.1 |
| | 1,135.0 | 849.6 | 1,053.7 | 787.4 |

The average number of staff employed in the year, expressed as full-time equivalents, was:

| | |
|---------------|--------|
| 17,083 | 16,376 |
|---------------|--------|

Following the update for the 2017 triennial valuation of the Universities Superannuation Scheme (USS), the impact of the change in assumptions (net of contributions payable) on staff costs resulting from the revised deficit recovery funding plan is noted above. The non-cash charge to staff costs resulting from the change in assumptions, including the change in discount rate, is £230.7m (2018: £4.5m). Cash contributions made to reduce the deficit in the year amounted to £5.6m (2018: £8.0m) resulting in a net charge to staff costs of £225.1m (2018: £(3.5m)) for the year.

Remuneration and pay ratios of the Vice-Chancellor

With income of over £2 billion, more than 17,000 staff across the Group and a diverse range of academic and non-academic strands, the University is a complex organisation. It is one of the largest universities in the UK, with significant academic standing and global presence, regularly appearing in the top five of global university rankings.

Consequently, when considering the remuneration for the Vice-Chancellor, the Remuneration Committee undertakes detailed analysis of comparable salaries in the UK, North America and Australia. The Remuneration Committee considers the range within which a salary can be offered and proposes a package to the Council once the candidate is identified. The last recruitment exercise for Vice-Chancellor was undertaken in 2016-17. The Vice-Chancellor is appointed for a fixed term of seven years.

The Vice-Chancellor's performance is assessed annually against objectives agreed by the Council. The Vice-Chancellor's remuneration is reviewed at the end of the second, fourth and sixth years of his/her term of office. Based on that assessment, the Council determines any salary increase, having been advised by the Remuneration Committee and taking due regard of salary growth across the wider University. It should be noted that whilst a pay review was due during 2018-19, the Vice-Chancellor elected not to receive any increase in pay other than the national pay award.

The remuneration of the current Vice-Chancellor is detailed in the table below and relates to the period from 1 August 2018 to 31 July 2019. The comparative year relates to the ten-month period from 1 October 2017, when the Vice-Chancellor took up office, to 31 July 2018 and also includes salary for an additional month (September 2017) as Vice-Chancellor-Elect.

| | 2019 £000 | 2018 £000 |
|-----------------------------------------------------|--------------|--------------|
| Salary for the period | 372 | 335 |
| Deductions to reflect salary sacrifice arrangements | (9) | (8) |
| Net salary paid in the year | 363 | 327 |
| Taxable benefits in kind | 31 | 29 |
| Non-taxable benefits in kind | 19 | 16 |
| Total excluding employer pension contributions | 413 | 372 |
| Employer pension contributions | 17 | 19 |
| Payments made in lieu of pension | 45 | 37 |
| Total remuneration | 475 | 428 |

13 Staff costs (continued)

The salary for the period is the basic contractual salary before adjusting for salary sacrifice arrangements under which, in common with other employees, the Vice-Chancellor sacrificed an amount of pay relating to enhanced opt-out benefits for Death in Service and Ill Health. The employer pension contributions reflect both the employer payments for these benefits over to the Universities Superannuation Scheme and the Vice-Chancellor's contribution of £9k (2018: £8k).

Taxable benefits in kind include private healthcare of £6,730 (2018: £1,902), accommodation-related costs (heating, lighting and maintenance) of £4,401 (2018: £2,308) and the provision of accommodation of £20,000 (2018: £16,668). The provision of accommodation benefit was treated as non-taxable in the previous year in line with HMRC rules which exempted certain employees from being subject to income tax and national insurance contributions on such a benefit provided certain conditions were met. However, following the recent changes announced by HMRC and effective from 6 April 2019 the exemption can no longer be applied and as such the provision of accommodation benefit has been reclassified as a taxable benefit and the prior year restated. The accommodation benefit has been based on an independent valuation using comparable market data for market rentals of similar properties in the Cambridge area and has been pro-rated to reflect only the personal use of the property, as opposed to business and entertaining use. There were no tax consultancy services benefits received in the current year (2018: £1,486) or relocation expenses (2018: £5,922). Non-taxable benefits include personal flight travel of £19,143 (2018: £16,210, including relocation flights).

Pay ratios:

(a) The Vice-Chancellor's basic salary is 11.1 times (2018: 11.3) the median pay of staff, where the median pay is calculated on a full-time equivalent basis for the salaries paid by the University to its staff. The comparative ratio reflects the full year basic salary equivalent for the Vice-Chancellor.

(b) The Vice-Chancellor's total remuneration is 12.0 times (2018: 12.4) the median pay of staff, where the median pay is calculated on a full-time equivalent basis for the total remuneration paid by the University to its staff. The comparative ratio reflects the full year remuneration equivalent for the Vice-Chancellor.

The median pay calculation includes over 1,175 agency staff employed on temporary contracts through the University's Temporary Employment Services (TES).

Notes to the accounts for the year ended 31 July 2019 (continued)

13 Staff costs (continued)

Basic salary bandings for higher paid staff

The number of staff (FTE's) with a basic salary in excess of £100,000 per annum, before salary sacrifice arrangements, is outlined below:

| | Group 2019 | Group 2018 |
|---------------------|---------------|---------------|
| £100,001 - £105,000 | 104 | 89 |
| £105,001 - £110,000 | 42 | 48 |
| £110,001 - £115,000 | 39 | 33 |
| £115,001 - £120,000 | 26 | 30 |
| £120,001 - £125,000 | 26 | 22 |
| £125,001 - £130,000 | 16 | 11 |
| £130,001 - £135,000 | 17 | 19 |
| £135,001 - £140,000 | 15 | 7 |
| £140,001 - £145,000 | 17 | 8 |
| £145,001 - £150,000 | 10 | 9 |
| £150,001 - £155,000 | 7 | 9 |
| £155,001 - £160,000 | 2 | 1 |
| £160,001 - £165,000 | 2 | 5 |
| £165,001 - £170,000 | 2 | 1 |
| £170,001 - £175,000 | 1 | 3 |
| £175,001 - £180,000 | 2 | 2 |
| £180,001 - £185,000 | 4 | 1 |
| £185,001 - £190,000 | 1 | 1 |
| £190,001 - £195,000 | 3 | 2 |
| £195,001 - £200,000 | 1 | 1 |
| £200,001 - £205,000 | 2 | 2 |
| £205,001 - £210,000 | - | - |
| £210,001 - £215,000 | - | - |
| £215,001 - £220,000 | 1 | 1 |
| £220,001 - £225,000 | - | - |
| £225,001 - £230,000 | - | 1 |
| £230,001 - £235,000 | - | - |
| £235,001 - £240,000 | - | 1 |
| £240,001 - £245,000 | 2 | 1 |
| £245,001 - £250,000 | - | 1 |
| £250,001 - £255,000 | - | 1 |
| £255,001 - £260,000 | 1 | - |
| £295,001 - £300,000 | 1 | - |
| £325,001 - £330,000 | - | 1 |
| £330,001 - £335,000 | 1 | 2 |
| £365,001 - £370,000 | - | 1 |
| £370,001 - £375,000 | - | - |
| £375,001 - £380,000 | 1 | - |
| £380,001 - £385,000 | 1 | - |
| | 347 | 314 |

The above statistics include staff engaged in business and commercial activities, including those of Cambridge Assessment and Cambridge University Press.

Compensation for loss of office

Aggregate payments for compensation for loss of office were paid to 94 members of staff in 2018-19 (67 in 2017-18):

Payments in respect of loss of office

| Group 2019 | Group 2018 |
|---------------|---------------|
| £000 | £000 |
| 2,092 | 2,119 |

Key management personnel

The total remuneration of the Vice-Chancellor, the Pro-Vice-Chancellors, Chief Financial Officer and Registrar for the year (or part thereof), comprising salary and benefits (taxable and non-taxable), employer pension contributions and before salary sacrifice arrangements, was:

| | |
|--------------|-------|
| 2,102 | 2,025 |
|--------------|-------|

14 Analysis of consolidated expenditure by activity

| | Staff costs | Other operating expenses | Depreciation | Interest payable | Group 2019 Total | Group 2018 Total |
|----------------------------------------------------|----------------|--------------------------|--------------|------------------|------------------|------------------|
| | £m | £m | £m | £m | £m | £m |
| Academic departments | 270.9 | 83.4 | 9.4 | – | 363.7 | 338.0 |
| Academic services | 34.8 | 8.4 | 1.0 | – | 44.2 | 47.7 |
| Payments to Colleges (see Note 37) | – | 73.8 | – | – | 73.8 | 70.1 |
| Research grants and contracts | 238.1 | 203.7 | 29.2 | – | 471.0 | 435.3 |
| Other activities: | | | | | | |
| Examination and assessment services | 132.8 | 217.1 | 12.2 | – | 362.1 | 347.8 |
| Publishing services | 115.5 | 177.0 | 4.0 | 2.5 | 299.0 | 297.5 |
| Other services rendered | 16.5 | 35.9 | – | – | 52.4 | 41.3 |
| Intellectual property | 2.9 | 3.4 | 0.2 | – | 6.5 | 6.2 |
| Residences, catering and conferences | 3.1 | 11.7 | – | – | 14.8 | 14.5 |
| Other activities total | 270.8 | 445.1 | 16.4 | 2.5 | 734.8 | 707.3 |
| Administration and central services: | | | | | | |
| Administration | 53.5 | 2.0 | 0.9 | 1.2 | 57.6 | 66.9 |
| General educational | 3.0 | 65.0 | 0.1 | – | 68.1 | 60.4 |
| Staff and student facilities | 3.7 | 0.7 | – | – | 4.4 | 4.2 |
| Development office | 6.9 | 8.4 | – | – | 15.3 | 12.9 |
| Other | 1.4 | 9.3 | – | – | 10.7 | 0.9 |
| Administration and central services total | 68.5 | 85.4 | 1.0 | 1.2 | 156.1 | 145.3 |
| Premises | 18.4 | 69.8 | 54.7 | – | 142.9 | 134.3 |
| Interest payable on bond liabilities | – | – | – | 72.7 | 72.7 | 14.8 |
| Pension cost adjustments for USS | 225.1 | – | – | 2.7 | 227.8 | (1.2) |
| Pension cost adjustments for CPS (see Note 34) | 8.4 | – | – | 12.1 | 20.5 | 19.5 |
| Total per statement of comprehensive income | 1,135.0 | 969.6 | 111.7 | 91.2 | 2,307.5 | 1,911.1 |

Group
2019
£000

Group
2018
£000

Other operating expenses include:

Operating lease charges

| | | |
|--------------------|--------|-------|
| Land and buildings | 11,666 | 7,337 |
| Other | 980 | 893 |

Auditors' remuneration

| | | |
|----------------------------------------------------------------------------------------------|-----|-------|
| Audit fees payable to the Group's external auditors | 936 | 1,140 |
| Other fees payable to the Group's external auditors | 66 | 159 |
| Audit fees payable to other firms (in respect of certain Trusts and subsidiary undertakings) | 96 | 47 |

Payments to trustees

| | | |
|----------------------------------------------------------------------------|---|---|
| Reimbursement of expenses to three (2018: two) external members of Council | 8 | 4 |
|----------------------------------------------------------------------------|---|---|

There were no other payments made to trustees for their services to the University.

These amounts include related irrecoverable VAT.

Notes to the accounts for the year ended 31 July 2019 (continued)

15 Interest and other finance costs

| | Group | Group | University | University |
|------------------------------------------------------------------------------|--------------|-------|-------------------|------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £m | £m | £m | £m |
| Interest payable and other finance costs on bond liabilities (see Note 27) | 72.7 | 14.8 | 72.7 | 14.8 |
| Interest on pension liabilities (see Note 28) | 16.7 | 18.2 | 16.6 | 18.1 |
| Interest paid on other retirement benefit liabilities (see Note 29) | 0.6 | 0.6 | 0.6 | 0.6 |
| Finance charge associated with the revaluation of forward exchange contracts | 1.2 | – | 1.2 | – |
| | 91.2 | 33.6 | 91.1 | 33.5 |

The University is exposed to certain foreign currency transactions as part of its normal course of activities. The University enters into forward exchange contracts in order to provide greater certainty over the settlement exchange rates. To the extent that these contracts are unsettled at the balance sheet date they are revalued at that date with the resultant charge or credit being recognised through finance costs.

Interest payable and other finance costs on bond liabilities can be analysed as follows:

| | | | | |
|----------------------------------------------------|-------------|------|-------------|------|
| Bond liabilities - unsecured 2012 (fixed interest) | 13.3 | 13.2 | 13.3 | 13.2 |
| Bond liabilities - unsecured 2018 (fixed interest) | 7.1 | 0.7 | 7.1 | 0.7 |
| Bond liabilities - unsecured 2018 (index-linked) | 52.3 | 0.9 | 52.3 | 0.9 |
| | 72.7 | 14.8 | 72.7 | 14.8 |

Included within the 2018 index-linked bond liabilities interest and finance costs is the adjustment to revalue the liabilities to their fair value at the balance sheet date. The additional financing charge recognised as a result of this revaluation is £51.5m (2018: Nil).

For further details on these bond liabilities see Note 27.

16 Taxation

| | Group | Group | University | University |
|--------------------|--------------|-------|-------------------|------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £m | £m | £m | £m |
| UK Corporation Tax | – | 0.1 | – | 0.1 |
| Foreign taxes | 3.8 | 3.0 | 1.5 | 2.1 |
| | 3.8 | 3.1 | 1.5 | 2.2 |

The foreign taxes for the Group and University primarily relate to overseas activities associated with publishing and examination services in the current year. Foreign taxes in respect of the prior year includes one-off foreign income tax paid on overseas trademark licence income. The Group operates across a variety of different geographical locations with activities which are subject to local tax and regulatory compliance requirements. As such the Group is exposed to a number of tax risks. The tax charge does not reflect payments to overseas tax of approximately £6.2m (2018: Nil) which the Group expects to contest successfully.

In respect of the prior year, due to its exempt charity status the tax charge for UK Corporation Tax is solely in respect of Research and Development Expenditure Credit grants received in 2017-18 (see Note 10 above).

17 Segment information

The Group's reportable segments are:

| | |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Higher Education Institution (HEI) | Teaching and research undertaken by the University |
| Assessment | Examination and assessment services, carried out by the University of Cambridge Examinations Syndicate and subsidiary undertakings, collectively known as Cambridge Assessment |
| Press | Publishing services, carried out by the Cambridge University Press Syndicate and subsidiary undertakings |
| Cambridge University Endowment Fund (CUEF) | The investment fund managed by the Group and holding the majority of the Group's investments together with some investments of Colleges and other associated bodies (see Note 11) |
| Trusts and other | The combination of smaller segments including the associated trusts and subsidiary companies not included in the Assessment and Press groups |

17 Segment information (continued)

The Council monitors the results of operating segments separately for the purposes of assessing performance and making decisions about the allocation of resources. Segment performance is evaluated based on reported surplus. The Press segment reports for financial years ending 30 April. CUEF reports for financial years ending 30 June and focuses on total return as the measure of income and surplus. The segment information presented below uses the same measures as reported by each segment, adjusted for Press and CUEF to the financial year ended 31 July.

| | HEI | Assessment | Press | CUEF | Trusts and other | Eliminations and adjustments | Group |
|------------------------------------------------------------------------------------------|----------------|--------------|--------------|----------------|---------------------|------------------------------------|----------------|
| | £m | £m | £m | £m | £m | £m | £m |
| Year ended 31 July 2019 | | | | | | | |
| Total income | | | | | | | |
| External | 1,284.5 | 485.0 | 337.7 | 202.7 | 70.1 | (188.0) | 2,192.0 |
| Intersegment | 176.5 | 10.1 | 5.3 | – | 117.2 | (309.1) | – |
| Total | 1,461.0 | 495.1 | 343.0 | 202.7 | 187.3 | (497.1) | 2,192.0 |
| Surplus for the year | 34.2 | 104.0 | 30.5 | 202.7 | 29.2 | (283.3) | 117.3 |
| Included in surplus for the year: | | | | | | | |
| Investment income | 87.9 | 9.8 | 1.9 | 16.7 | 31.7 | (107.8) | 40.2 |
| Depreciation and amortisation | (94.1) | (19.2) | (14.0) | – | (1.8) | 0.4 | (128.7) |
| Interest payable | (88.1) | (0.6) | (2.5) | – | – | – | (91.2) |
| Gain on investments | 120.6 | 6.1 | 1.1 | 186.0 | 19.2 | (97.9) | 235.1 |
| Additions to intangible assets, fixed assets, heritage assets and investment property | 190.3 | 24.8 | 22.9 | – | 2.8 | (24.1) | 216.7 |
| Assets | 6,400.1 | 871.9 | 370.5 | 3,455.9 | 592.8 | (3,392.7) | 8,298.5 |
| Liabilities | (2,533.2) | (174.3) | (266.6) | – | (93.2) | (86.4) | (3,153.7) |
| Net assets | 3,866.9 | 697.6 | 103.9 | 3,455.9 | 499.6 | (3,479.1) | 5,144.8 |
| Year ended 31 July 2018 | | | | | | | |
| Total income | | | | | | | |
| External | 1,150.9 | 438.6 | 318.9 | 289.8 | 42.2 | (275.6) | 1,964.8 |
| Intersegment | 131.3 | 9.9 | 1.6 | – | 149.6 | (292.4) | – |
| Total | 1,282.2 | 448.5 | 320.5 | 289.8 | 191.8 | (568.0) | 1,964.8 |
| Surplus for the year | 175.9 | 101.8 | 16.2 | 289.8 | 48.5 | (362.6) | 269.6 |
| Included in surplus for the year: | | | | | | | |
| Investment income | 73.4 | 8.5 | 1.4 | 18.0 | 15.5 | (97.0) | 19.8 |
| Depreciation and amortisation | (81.7) | (31.3) | (13.6) | – | (1.3) | 0.2 | (127.7) |
| Interest payable | (30.0) | (0.6) | (3.0) | – | – | – | (33.6) |
| Gain on investments | 92.1 | 14.3 | 2.6 | 271.8 | 29.7 | (191.5) | 219.0 |
| Additions to intangible assets, fixed assets, heritage assets and investment property | 285.8 | 48.5 | 10.7 | – | 17.7 | (41.5) | 321.2 |
| Assets | 6,000.0 | 781.2 | 334.5 | 3,252.8 | 572.1 | (3,000.1) | 7,940.5 |
| Liabilities | (1,997.6) | (134.9) | (215.6) | – | (79.7) | (275.3) | (2,703.1) |
| Net assets | 4,002.4 | 646.3 | 118.9 | 3,252.8 | 492.4 | (3,275.4) | 5,237.4 |

Notes to the accounts for the year ended 31 July 2019 (continued)

17 Segment information (continued)

Eliminations and adjustments

The following eliminations and adjustments reconcile the totals of segment measures to the consolidated measures reported in these financial statements.

| | 2019 | 2018 |
|-------------------------------------------------------------------------------------------|----------------|----------------|
| | £m | £m |
| Total income | | |
| Elimination of intersegment income | (309.1) | (292.4) |
| Exclude investment gain element of CUEF total return | (186.0) | (271.7) |
| Exclude CUEF investment income attributable to external investors | (2.0) | (3.9) |
| Total eliminations and adjustments | <u>(497.1)</u> | <u>(568.0)</u> |
| Surplus for the year | | |
| Eliminate CUEF surplus recognised in other segments or attributable to external investors | (202.7) | (289.8) |
| Eliminate transfers from other segments to HEI based on surpluses | (55.9) | (35.1) |
| Eliminate profit on transfer of Primary School | – | (15.9) |
| Elimination of intersegment funding commitments | 3.8 | (0.5) |
| Eliminate intersegment surplus on transfer of fixed assets | (23.4) | (23.6) |
| Eliminate other intersegment balances | (5.1) | 2.3 |
| Total eliminations and adjustments | <u>(283.3)</u> | <u>(362.6)</u> |

Assets and liabilities

| | Assets | Liabilities | Net assets | Net assets |
|------------------------------------------------------------------------------------------|------------------|---------------|------------------|------------------|
| | 2019 | 2019 | 2019 | 2018 |
| | £m | £m | £m | £m |
| Eliminate CUEF assets recognised in other segments or attributable to external investors | (3,108.0) | (347.9) | (3,455.9) | (3,252.8) |
| Eliminate accrual for intersegment funding commitments | – | 21.3 | 21.3 | 17.5 |
| Eliminate intersegment surplus on transfers of fixed assets | (38.0) | – | (38.0) | (36.9) |
| Eliminate investments in subsidiaries | (5.0) | 5.0 | – | – |
| Eliminate intersegment balances | (241.7) | 235.2 | (6.5) | (3.2) |
| Total eliminations and adjustments | <u>(3,392.7)</u> | <u>(86.4)</u> | <u>(3,479.1)</u> | <u>(3,275.4)</u> |

18 Intangible assets and goodwill

| Group | | | | 2019 | 2018 |
|--------------------------------------------------|----------------|----------------|--------------|---------------------|---------------------|
| | Software £m | Goodwill £m | Others £m | Total £m | Total £m |
| Cost | | | | | |
| At 1 August | 223.0 | 16.1 | 9.7 | 248.8 | 233.6 |
| Additions | 27.9 | 6.9 | 5.5 | 40.3 | 20.6 |
| Disposals | (9.9) | – | – | (9.9) | (4.8) |
| Transfers (to)/from other balance sheet accounts | 0.4 | – | – | 0.4 | – |
| Currency adjustments | – | – | – | – | (0.6) |
| At 31 July | 241.4 | 23.0 | 15.2 | 279.6 | 248.8 |
| Accumulated amortisation | | | | | |
| At 1 August | 160.2 | 16.1 | 9.0 | 185.3 | 157.0 |
| Charge for the year | 16.5 | 0.1 | 0.4 | 17.0 | 33.3 |
| Eliminated on disposals | (9.8) | – | – | (9.8) | (4.6) |
| Currency adjustments | – | – | – | – | (0.4) |
| At 31 July | 166.9 | 16.2 | 9.4 | 192.5 | 185.3 |
| Net book value | | | | | |
| At 31 July | 74.5 | 6.8 | 5.8 | 87.1 | 63.5 |
| At 1 August | 62.8 | – | 0.7 | 63.5 | 76.6 |
| University | | | | | |
| | Software £m | Goodwill £m | Others £m | 2019 Total £m | 2018 Total £m |
| Cost | | | | | |
| At 1 August | 213.7 | 1.1 | 13.7 | 228.5 | 213.3 |
| Additions | 26.7 | 6.9 | 5.5 | 39.1 | 20.0 |
| Disposals | (8.1) | – | – | (8.1) | (4.7) |
| Currency adjustments | – | – | – | – | (0.1) |
| At 31 July | 232.3 | 8.0 | 19.2 | 259.5 | 228.5 |
| Accumulated amortisation | | | | | |
| At 1 August | 152.0 | 1.1 | 12.8 | 165.9 | 139.3 |
| Charge for the year | 15.9 | 0.1 | 0.6 | 16.6 | 31.3 |
| Eliminated on disposals | (7.8) | – | – | (7.8) | (4.6) |
| Currency adjustments | – | – | – | – | (0.1) |
| At 31 July | 160.1 | 1.2 | 13.4 | 174.7 | 165.9 |
| Net book value | | | | | |
| At 31 July | 72.2 | 6.8 | 5.8 | 84.8 | 62.6 |
| At 1 August | 61.7 | – | 0.9 | 62.6 | 74.0 |

Amortisation of intangibles is included within 'other operating expenses' in the statement of comprehensive income.

Notes to the accounts for the year ended 31 July 2019 (continued)

19 Fixed assets

| Group | Non-leasehold Leasehold Assets in | | | | | 2019 | 2018 |
|--------------------------------------------------|-----------------------------------|-----------|-----------|--------------|-----------|---------|---------|
| | Land | buildings | buildings | construction | Equipment | | |
| | £m | £m | £m | £m | £m | £m | £m |
| Cost | | | | | | | |
| At 1 August | 377.5 | 1,699.7 | 238.7 | 316.5 | 416.3 | 3,048.7 | 2,897.5 |
| Additions | – | 0.7 | 1.2 | 119.9 | 32.2 | 154.0 | 249.0 |
| Transfers | – | 96.1 | 110.3 | (206.7) | 0.3 | – | – |
| Transfers (to)/from investment properties | – | – | – | – | – | – | (81.6) |
| Transfers (to)/from other balance sheet accounts | – | 1.9 | – | – | (0.4) | 1.5 | – |
| Disposals | – | – | – | – | (13.3) | (13.3) | (15.7) |
| Currency adjustments | – | – | 0.1 | – | 0.5 | 0.6 | (0.5) |
| At 31 July | 377.5 | 1,798.4 | 350.3 | 229.7 | 435.6 | 3,191.5 | 3,048.7 |
| Accumulated depreciation | | | | | | | |
| At 1 August | – | 163.3 | 25.8 | – | 300.3 | 489.4 | 409.3 |
| Charge for the year | – | 55.9 | 7.7 | – | 48.1 | 111.7 | 94.4 |
| Transfers (to)/from other balance sheet accounts | – | 1.9 | – | – | – | 1.9 | – |
| Transfers (to)/from investment properties | – | – | – | – | – | – | (3.1) |
| Elimination on disposals | – | – | – | – | (13.2) | (13.2) | (11.0) |
| Currency adjustments | – | – | 0.1 | – | 0.2 | 0.3 | (0.2) |
| At 31 July | – | 221.1 | 33.6 | – | 335.4 | 590.1 | 489.4 |
| Net book value | | | | | | | |
| At 31 July | 377.5 | 1,577.3 | 316.7 | 229.7 | 100.2 | 2,601.4 | 2,559.3 |
| At 1 August | 377.5 | 1,536.4 | 212.9 | 316.5 | 116.0 | 2,559.3 | 2,488.2 |

The net book value of leasehold land included in the above table is £29.8m (2018: £29.8m).

| University | Non-leasehold Leasehold Assets in | | | | | 2019 | 2018 |
|--------------------------------------------------|-----------------------------------|-----------|-----------|--------------|-----------|---------|---------|
| | Land | buildings | buildings | construction | Equipment | | |
| | £m | £m | £m | £m | £m | £m | £m |
| Cost | | | | | | | |
| At 1 August | 377.5 | 1,701.7 | 232.0 | 318.2 | 409.2 | 3,038.6 | 2,888.2 |
| Additions | – | 0.7 | – | 120.6 | 29.1 | 150.4 | 247.4 |
| Transfers | – | 96.7 | 110.2 | (207.2) | 0.3 | – | – |
| Transfers (to)/from investment properties | – | – | – | – | – | – | (81.6) |
| Transfers (to)/from other balance sheet accounts | – | 1.9 | – | – | (1.4) | 0.5 | – |
| Disposals | – | – | – | – | (12.7) | (12.7) | (15.2) |
| Currency adjustments | – | – | – | – | – | – | (0.2) |
| At 31 July | 377.5 | 1,801.0 | 342.2 | 231.6 | 424.5 | 3,176.8 | 3,038.6 |
| Accumulated depreciation | | | | | | | |
| At 1 August | – | 163.0 | 24.2 | – | 296.8 | 484.0 | 404.0 |
| Charge for the year | – | 56.0 | 7.3 | – | 45.9 | 109.2 | 93.6 |
| Transfers (to)/from other balance sheet accounts | – | 1.9 | – | – | (1.4) | 0.5 | – |
| Transfers (to)/from investment properties | – | – | – | – | – | – | (3.1) |
| Elimination on disposals | – | – | – | – | (12.7) | (12.7) | (10.5) |
| Currency adjustments | – | – | – | – | – | – | – |
| At 31 July | – | 220.9 | 31.5 | – | 328.6 | 581.0 | 484.0 |
| Net book value | | | | | | | |
| At 31 July | 377.5 | 1,580.1 | 310.7 | 231.6 | 95.9 | 2,595.8 | 2,554.6 |
| At 1 August | 377.5 | 1,538.7 | 207.8 | 318.2 | 112.4 | 2,554.6 | 2,484.2 |

The net book value of leasehold land included in the above table is £29.8m (2018: £29.8m).

20 Heritage assets

| | Group 2019 £m | Group 2018 £m | University 2019 £m | University 2018 £m |
|-----------------------------------|---------------------|---------------------|--------------------------|--------------------------|
| Opening balance | 70.6 | 67.3 | 70.6 | 67.3 |
| Additions in the year | 1.4 | 3.3 | 1.4 | 3.3 |
| Closing balance at 31 July | 72.0 | 70.6 | 72.0 | 70.6 |

The University holds and conserves certain collections, artefacts and other assets of historical, artistic or scientific importance. Most of these are housed in the University's nationally accredited museums and collections and in its libraries, providing a valuable research and educational resource locally, nationally and internationally as well as an unrivalled opportunity to present the University's work to a wide audience. Other collections are held in academic departments or are on display as public art. Major collections include those held by the University Library, a legal deposit, the Botanic Garden, and the Fitzwilliam Museum.

In respect of its major collections, the University's practice, in accordance with the national accreditation standards, is: to preserve, conserve, and manage the objects in its care; to augment the collections where appropriate and within the resources available; to enable and encourage access to and use of the collections for teaching and research; and to enable wide access to and engagement with the collections by members of the public.

As stated in the statement of significant accounting policies (see Note 4), heritage assets acquired since 1 August 1999 have been capitalised. The majority of assets held in the University's collections were acquired before 1 August 1999; because reliable estimates of cost or valuation are not available for these on a cost-benefit basis they have not been capitalised. As a result the total included in the balance sheet is partial.

Additions for the current and previous four years were as follows:

| | 2019 £m | 2018 £m | 2017 £m | 2016 £m | 2015 £m |
|------------------------------------------------|------------|------------|------------|------------|------------|
| Acquisitions purchased with specific donations | – | 1.1 | 1.3 | 1.2 | 1.1 |
| Value of acquisitions by donation | 1.4 | 2.2 | 0.4 | 2.5 | 0.4 |
| Total acquired by, or funded by, donations | 1.4 | 3.3 | 1.7 | 3.7 | 1.5 |
| Acquisitions purchased with University funds | – | – | 0.5 | 0.5 | – |
| Total acquisitions capitalised | 1.4 | 3.3 | 2.2 | 4.2 | 1.5 |

21 Non-current asset investments

a) Other investments

| | Group 2019 £m | Group 2018 £m | University 2019 £m | University 2018 £m |
|-------------------------------------------------------------|---------------------|---------------------|--------------------------|--------------------------|
| Opening balance | 2,911.9 | 2,766.1 | 2,346.7 | 2,239.3 |
| Additions in the year | 265.4 | 77.9 | 264.1 | 72.3 |
| Disposals in the year | (141.1) | (184.1) | (119.7) | (162.6) |
| Share of operating surplus in joint ventures and associates | 1.5 | 1.9 | – | – |
| Valuation gains on investments | 181.4 | 250.1 | 144.7 | 197.7 |
| Loan to joint ventures | 0.4 | – | – | – |
| Currency adjustments | 0.6 | – | – | – |
| Closing balance at 31 July | 3,220.1 | 2,911.9 | 2,635.8 | 2,346.7 |
| Represented by: | | | | |
| CUEF units (see Note 11) | 3,108.0 | 2,824.6 | 2,530.0 | 2,260.2 |
| Securities | 15.9 | 17.3 | 10.9 | 11.0 |
| Spin-out and similar companies (see Note 35) | 86.2 | 62.9 | 59.6 | 40.6 |
| Investments in subsidiary undertakings | – | – | 33.8 | 33.9 |
| Investments in joint ventures | 9.4 | 6.5 | 0.5 | – |
| Investments in associates | 0.5 | 0.5 | 0.9 | 0.9 |
| Other | 0.1 | 0.1 | 0.1 | 0.1 |
| | 3,220.1 | 2,911.9 | 2,635.8 | 2,346.7 |

Other investments primarily relate to investments in farming and related products.

21 Non-current asset investments (continued)

| b) Investment properties | Group | Group | University | University |
|----------------------------------------------------|--------------|--------|-------------------|------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £m | £m | £m | £m |
| Opening balance | 501.4 | 407.1 | 501.4 | 407.1 |
| Additions in the year | 21.0 | 48.3 | 21.0 | 48.3 |
| Disposals in the year | (28.0) | (1.4) | (28.0) | (1.4) |
| Transfers (to) / from other balance sheet accounts | – | 78.5 | – | 78.5 |
| Net gains / (losses) from fair value adjustments | 53.1 | (31.1) | 53.1 | (31.1) |
| Closing balance | 547.5 | 501.4 | 547.5 | 501.4 |
| Represented by: | | | | |
| North West Cambridge development | 362.3 | 327.2 | 362.3 | 327.2 |
| Other investment property | 185.2 | 174.2 | 185.2 | 174.2 |
| | 547.5 | 501.4 | 547.5 | 501.4 |

Phase 1 of the North West Cambridge development is complete and includes accommodation for University staff and students, infrastructure and community facilities. The development has been valued as at 31 July 2019 by an external valuer, Gerald Eve LLP, a regulated firm of Chartered Surveyors. The valuation was prepared in accordance with the requirements of the RICS valuation - Global Standards (July 2017 edition) ("the Standards") published by the Royal Institution of Chartered Surveyors (RICS) and FRS 102. The valuation was undertaken on a fair value basis. The result is a revaluation gain in the carrying value of the investment of £44.5m. This is reflected as a valuation gain on investment and increases the carrying value of the investment from £317.8m to £362.3m. Other investment property is also revalued annually with properties valued in excess of £0.5m undertaken by an independent external valuer and the balance valued internally by the University's own Estates Management team. The annual valuation of these properties has resulted in a gain on investment of £8.6m.

The gain on investments of £235.1m (2018: £219.0) includes investment property gains of £53.1m (2018: £(31.1)m) as shown above, other non-current asset investment gains of £181.4m (2018: £250.1m) as shown in Note 21a, primarily relating to the endowment fund and £0.6m (2018: Nil) recognised through current asset investments relating to a specialist fund held with Royal London.

22 Stock and work in progress

| | Group | Group | University | University |
|--------------------------------------------------|--------------|-------|-------------------|------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £m | £m | £m | £m |
| Goods for resale | 24.9 | 23.6 | 24.4 | 19.1 |
| Pre-publication costs and other work in progress | 26.3 | 22.6 | 24.0 | 20.5 |
| Other stock | 1.5 | 1.2 | 1.5 | 1.2 |
| | 52.7 | 47.4 | 49.9 | 40.8 |

23 Trade and other receivables

Amounts due within one year

| | | | | |
|-------------------------------------|--------------|-------|--------------|-------|
| Research grants recoverable | 129.4 | 124.0 | 129.8 | 120.7 |
| Amounts due from group undertakings | – | – | 45.3 | 46.1 |
| Trade debtors | 224.6 | 201.2 | 194.2 | 179.3 |
| Other debtors | 109.2 | 93.0 | 100.4 | 78.1 |
| | 463.2 | 418.2 | 469.7 | 424.2 |

The majority of non-research trade and other receivables relates to examination and assessment services, and publishing services. Debtors relating to examination and assessment services are included within the Group amounting to £123.8m and within the University amounting to £120.6m. Debtors relating to publishing services are included within the Group amounting to £140.7m and within the University amounting to £137.0m.

24 Current asset investments

| | | | | |
|-----------------------------------------------------------|--------------|-------|----------------|---------|
| CUEF units held on behalf of other entities (see Note 11) | 347.9 | 428.2 | 925.9 | 992.6 |
| Money market investments | 174.1 | 63.1 | 174.1 | 63.1 |
| Other | – | 7.6 | – | 7.6 |
| | 522.0 | 498.9 | 1,100.0 | 1,063.3 |

| 25 Cash and cash equivalents | Group | Group | University | University |
|---------------------------------------------------------------|--------------|-------|-------------------|------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £m | £m | £m | £m |
| Money market investments with maturity less than three months | 646.1 | 793.6 | 646.1 | 793.6 |
| Cash at bank and in hand and with investment managers | 86.4 | 75.7 | 21.3 | 21.9 |
| | 732.5 | 869.3 | 667.4 | 815.5 |

26 Creditors: amounts falling due within one year

| | | | | |
|-----------------------------------------------------------------------------------------|----------------|---------|----------------|---------|
| Bank overdraft | - | 14.0 | - | 14.0 |
| Finance leases | 1.2 | 1.4 | 1.2 | 1.4 |
| Research grants received in advance | 224.8 | 216.2 | 224.8 | 211.1 |
| Other creditors and deferred income | 461.0 | 424.4 | 385.2 | 360.3 |
| Amounts due to group undertakings | - | - | 20.8 | 30.9 |
| Derivative financial instruments liabilities | 1.2 | - | 1.2 | - |
| Investments and cash equivalents held on behalf of subsidiary undertakings | - | - | 611.0 | 592.8 |
| Investments and cash equivalents held on behalf of Colleges and other associated bodies | 350.5 | 440.8 | 350.5 | 440.8 |
| | 1,038.7 | 1,096.8 | 1,594.7 | 1,651.3 |

Other creditors relating to examination and assessment services are included within the Group amounting to £125.1m and within the University amounting to £101.4m. Other creditors relating to publishing services are included within the Group amounting to £133.8m and within the University amounting to £123.2m. Deferred income of £180.5m is included above for the Group and £160.1m for the University as at 31 July 2019.

27 Creditors: amounts falling due after more than one year

| | | | | |
|----------------------------------------------------|----------------|-------|--------------|-------|
| Bond liabilities - unsecured 2012 (fixed interest) | 342.8 | 342.6 | 342.8 | 342.6 |
| Bond liabilities - unsecured 2018 (fixed interest) | 297.8 | 297.8 | 297.8 | 297.8 |
| Bond liabilities - unsecured 2018 (index-linked) | 348.2 | 296.7 | 348.2 | 296.7 |
| Finance leases | 1.3 | 1.2 | 1.3 | 1.2 |
| Accruals and deferred income | 11.5 | 11.3 | 1.2 | - |
| | 1,001.6 | 949.6 | 991.3 | 938.3 |

On 17 October 2012 the University issued £350m of 3.75% unsecured Bonds due October 2052. The Bonds were issued at 98.168% of their principal amount. The proceeds of issue, less directly attributable transaction costs, amounted to £342m. Interest at 3.75% p.a. is payable on 17 April and 17 October each year and commenced on 17 April 2013. In addition, on 27 June 2018 the University issued £300m of 2.35% unsecured Bonds due June 2078. The Bonds were issued at 99.552% of their principal amount. The proceeds of issue, less directly attributable transaction costs, amounted to £297.8m. Interest at 2.35% p.a. is payable on 27 June and 27 December each year and commenced on 27 December 2018.

The Bonds will be redeemed at their principal amounts of £350m and £300m on 17 October 2052 and 27 June 2078 respectively. The Bonds are initially measured at the proceeds of issue less all transaction costs directly attributable to the issue. After initial recognition, the Bonds are measured at amortised cost using the effective interest rate method. Under this method the discount at which the Bonds were issued and the transaction costs are accounted for as additional interest expense over the term of the Bonds.

Also on 27 June 2018 the University issued £300m of Index-linked Bonds (the "Indexed Bonds") due June 2068. The Indexed Bonds were issued at 98.893% of their principal amount. Interest is payable annually in arrears on 27 June each year and commenced on 27 June 2019. The interest charged is calculated as the product of 0.25% p.a. and the Limited Index Ratio. The Indexed Bonds will be redeemed in accordance with the Amortisation Schedule multiplied by the Limited Index Ratio or may be redeemed earlier at the option of the University. The Indexed Bonds are accounted for as complex financial instruments and were initially recognised at fair value at the transaction date which was deemed to be the face value of the Bonds (net of discount) of £296.7m. Transaction costs were immediately expensed on initial recognition of the Bonds. Subsequently the Bonds are re-measured to their fair value at each consecutive reporting date with any increase or decrease in liability recognised through finance costs in the statement of comprehensive income. As at 31 July 2019 the Indexed Bonds were revalued upwards to £348.2m based on an independent valuation from Morgan Stanley, increasing the liability and resulting in a fair value adjustment charge through finance costs of £51.5m.

All the Bonds referred to above are listed on the London Stock Exchange.

Notes to the accounts for the year ended 31 July 2019 (continued)

28 Pension liabilities

| Group | CPS | Press | Defined | USS deficit | Other | Total | Total |
|-----------------------------------------------------|--------------|---------------|--------------|--------------|--------------|----------------|---------|
| | (UK schemes) | benefit total | recovery | recovery | Other | 2019 | 2018 |
| | £m | £m | £m | £m | £m | £m | £m |
| Opening balance | 442.8 | 74.0 | 516.8 | 118.9 | (0.6) | 635.1 | 739.1 |
| Movement in year: | | | | | | | |
| Current service cost | 30.1 | 1.5 | 31.6 | – | 6.0 | 37.6 | 35.1 |
| Past service cost | 5.8 | – | 5.8 | – | – | 5.8 | – |
| Contributions | (28.5) | (4.5) | (33.0) | – | (6.0) | (39.0) | (33.0) |
| Administration expenses | 1.0 | – | 1.0 | – | 0.3 | 1.3 | 1.0 |
| Interest on liability | 12.1 | 1.9 | 14.0 | 2.7 | – | 16.7 | 18.2 |
| Currency adjustments | – | – | – | – | – | – | 0.1 |
| Net change in underlying assumptions (see Note 13): | | | | | | | |
| - change in underlying assumptions | – | – | – | 230.7 | – | 230.7 | 4.5 |
| - USS deficit contributions payable | – | – | – | (5.6) | – | (5.6) | (8.0) |
| | – | – | – | 225.1 | – | 225.1 | (3.5) |
| Liability on acquisition | – | – | – | 0.8 | – | 0.8 | – |
| Actuarial (gain) / loss | 169.7 | 35.5 | 205.2 | – | 0.1 | 205.3 | (121.9) |
| Closing balance at 31 July | 633.0 | 108.4 | 741.4 | 347.5 | (0.2) | 1,088.7 | 635.1 |
| University | | | | | | | |
| Opening balance | 442.8 | 74.0 | 516.8 | 114.8 | (0.6) | 631.0 | 734.1 |
| Movement in year: | | | | | | | |
| Current service cost | 30.1 | 1.5 | 31.6 | – | 5.8 | 37.4 | 35.1 |
| Past service cost | 5.8 | – | 5.8 | – | – | 5.8 | – |
| Contributions | (28.5) | (4.5) | (33.0) | – | (5.8) | (38.8) | (33.0) |
| Administration expenses | 1.0 | – | 1.0 | – | 0.2 | 1.2 | 1.0 |
| Interest on liability | 12.1 | 1.9 | 14.0 | 2.6 | – | 16.6 | 18.1 |
| Currency adjustments | – | – | – | – | – | – | 0.1 |
| Net change in underlying assumptions (see Note 13): | | | | | | | |
| - change in underlying assumptions | – | – | – | 224.1 | – | 224.1 | 5.2 |
| - USS deficit contributions payable | – | – | – | (5.5) | – | (5.5) | (7.7) |
| | – | – | – | 218.6 | – | 218.6 | (2.5) |
| Liability on acquisition | – | – | – | 0.8 | – | 0.8 | – |
| Actuarial (gain) / loss | 169.7 | 35.5 | 205.2 | – | (0.2) | 205.0 | (121.9) |
| Closing balance at 31 July | 633.0 | 108.4 | 741.4 | 336.8 | (0.6) | 1,077.6 | 631.0 |

The net liabilities in respect of the Cambridge University Assistants' Contributory Pension Scheme (CPS) and the Press defined benefit schemes represent the present value of the schemes' obligations to provide future benefits in relation to past service, less the assets of the schemes. For additional information please refer to Note 34.

The obligation to fund the past deficit on the Universities Superannuation Scheme (USS) arises from the contractual obligation with the USS to fund deficit payments in accordance with the deficit recovery plan. In calculating this provision, management has estimated future staff levels within the USS scheme for the duration of the contractual obligation and salary inflation. Key assumptions are set out below and further information is provided in Note 34.

The Group also has a smaller number of staff in other pension schemes, including the defined benefit schemes relating to Cambridge University Press activities in the United States, the Local Government Pension Scheme (LGPS) supporting staff in the University primary school and the National Health Service Pension Scheme (NHSPS).

The 'liability on acquisition' refers to the recent acquisition by Cambridge Assessment and Cambridge University Press of the Centre for Evaluation and Monitoring whereby the liability associated with those employees contracted through the USS has been assumed by the University.

The adoption of the new USS deficit recovery plan following the 2017 actuarial valuation has given rise to a significant increase in the deficit provision which has increased from £118.9m to £347.5m. £213.8m of this increase is attributable to the change in deficit contributions contractual commitment from 2.1% to 5.0% p.a. The movements described as a "net change in underlying assumptions" also include the impact of movements in discount rates. The resulting increase in provision in 2018-19 is included in staff costs (see Note 13).

Since the year end, following the completion of the 2018 USS actuarial valuation, a new deficit recovery plan has been agreed, details of which are outlined in Note 34. As at 31 July 2019 and with all other assumptions used to calculate the provision unchanged, this would have resulted in a revised provision of £197.4m, a decrease of £150.1m from the current year end provision.

28 Pension liabilities (continued)

The major assumptions used to calculate the obligation are:

| | 2019 | 2018 |
|---------------|-------|-------|
| Discount rate | 1.61% | 2.20% |
| Salary growth | 4.2% | 4.0% |

Sensitivity analysis

As set out in the accounting policies, there are some critical judgements made in estimating the obligation to fund the USS deficit. The sensitivity of the principal assumptions used to measure the USS deficit provision are set out below:

Change in assumptions at 31 July 2019

- a) Impact of a 0.5% p.a. decrease in discount rate
- b) Impact of a 0.5% p.a. increase in salary inflation over duration
- c) Impact of a 0.5% p.a. increase in salary inflation year 1 only
- d) Impact of a 0.5% increase in staff changes year 1 only
- e) Impact of a 0.5% increase in staff changes over duration
- f) Impact of a 1.0% increase in deficit contributions from April 2020
- g) 1 year increase in term

Approximate impact

Liability increases by £15m

Liability increases by £15m

Liability increases by £2m

Liability increases by £2m

Liability increases by £15m

Liability increases by £68m

Liability increases by £28m

29 Other retirement benefits liabilities

| | 2019 | 2018 |
|-----------------------------------------|-------------|-------------|
| Group and University | £m | £m |
| Opening balance | 21.6 | 22.4 |
| Movement attributable to the year: | | |
| Current service cost less benefits paid | 0.2 | 0.2 |
| Contributions | (1.1) | (1.0) |
| Other finance cost | 0.6 | 0.6 |
| Currency adjustments | 0.5 | - |
| Actuarial (gain) / loss | 2.9 | (0.6) |
| Closing balance at 31 July | 24.7 | 21.6 |

These liabilities arise in relation to unfunded post-retirement medical and insurance schemes.

Notes to the accounts for the year ended 31 July 2019 (continued)

30 Endowment reserves

| Group | Permanent £m | Expendable £m | 2019 Total £m | 2018 Total £m |
|----------------------------------------------------|-------------------------|--------------------------|------------------------------|---------------------|
| Balance at 1 August | 1,299.3 | 556.4 | 1,855.7 | 1,727.9 |
| New endowments received | 58.9 | 7.9 | 66.8 | 21.6 |
| Transfers | 3.0 | (3.0) | – | – |
| Investment income | 8.0 | 2.0 | 10.0 | 5.3 |
| Expenditure | (41.0) | (25.9) | (66.9) | (54.9) |
| Valuation gains on investments | 75.9 | 31.7 | 107.6 | 155.8 |
| Loss on deconsolidation of Trust | – | (1.9) | (1.9) | – |
| Balance at 31 July | 1,404.1 | 567.2 | 1,971.3 | 1,855.7 |
| Capital | 1,213.5 | 535.1 | 1,748.6 | 1,650.8 |
| Unspent income | 190.6 | 32.1 | 222.7 | 204.9 |
| Balance at 31 July | 1,404.1 | 567.2 | 1,971.3 | 1,855.7 |
| Representing: | | | | |
| Trust and Special Funds: | | | | |
| Professorships, Readerships, and Lectureships | 703.1 | 84.6 | 787.7 | 744.0 |
| Scholarships and bursaries | 210.4 | 19.3 | 229.7 | 177.9 |
| Other | 463.6 | 166.6 | 630.2 | 614.4 |
| Gates Cambridge Trust | – | 290.0 | 290.0 | 285.5 |
| Examination Board restricted funds | – | 6.7 | 6.7 | 6.5 |
| General endowments | 27.0 | – | 27.0 | 27.4 |
| Group total | 1,404.1 | 567.2 | 1,971.3 | 1,855.7 |
| University | | | | |
| Balance at 1 August | 1,292.9 | 269.0 | 1,561.9 | 1,449.3 |
| New endowments received | 58.2 | 7.9 | 66.1 | 21.6 |
| Transfers | 3.0 | (3.0) | – | – |
| Income receivable from endowment asset investments | 7.5 | 0.6 | 8.1 | 3.8 |
| Expenditure | (40.5) | (13.3) | (53.8) | (44.2) |
| Valuation gains on investments | 75.7 | 15.9 | 91.6 | 131.4 |
| Balance at 31 July | 1,396.8 | 277.1 | 1,673.9 | 1,561.9 |
| Capital | 1,206.1 | 245.1 | 1,451.2 | 1,357.0 |
| Unspent income | 190.7 | 32.0 | 222.7 | 204.9 |
| Balance at 31 July | 1,396.8 | 277.1 | 1,673.9 | 1,561.9 |

31 Restricted reserves

| | Unspent capital grants £m | Unspent research grants £m | Specific donations £m | Other Restricted Reserves £m | 2019 Total £m | 2018 Total £m |
|---------------------------------------------|------------------------------------|-------------------------------------|-----------------------------|---------------------------------------|---------------------|---------------------|
| Group | | | | | | |
| Balance at 1 August | 13.7 | 32.1 | 52.1 | – | 97.9 | 85.5 |
| Donations and grants recognised in the year | 91.5 | 18.5 | 34.5 | – | 144.5 | 100.4 |
| Investment income | – | – | 0.1 | 0.2 | 0.3 | 0.3 |
| Expenditure | (1.6) | (13.3) | (29.6) | – | (44.5) | (28.4) |
| Capital grants spent | (91.1) | – | – | – | (91.1) | (61.9) |
| Valuation gains on investments | – | – | 1.6 | 1.0 | 2.6 | 2.0 |
| Transfers from unrestricted reserves | – | – | – | 18.7 | 18.7 | – |
| Actuarial loss | (0.1) | – | – | – | (0.1) | – |
| Balance at 31 July | 12.4 | 37.3 | 58.7 | 19.9 | 128.3 | 97.9 |
| University | | | | | | |
| Balance at 1 August | 13.7 | 32.1 | 51.2 | – | 97.0 | 84.3 |
| Donations and grants recognised in the year | 89.7 | 18.5 | 20.8 | – | 129.0 | 90.6 |
| Investment income | – | – | 0.1 | 0.2 | 0.3 | 0.3 |
| Expenditure | – | (13.3) | (15.9) | – | (29.2) | (18.4) |
| Capital grants spent | (91.1) | – | – | – | (91.1) | (61.8) |
| Valuation gains on investments | – | – | 1.6 | 1.0 | 2.6 | 2.0 |
| Transfers from unrestricted reserves | – | – | – | 18.7 | 18.7 | – |
| Balance at 31 July | 12.3 | 37.3 | 57.8 | 19.9 | 127.3 | 97.0 |

Other restricted reserves relates to certain units in the Cambridge University Endowment Fund which were previously held as unrestricted but which have been re-categorised to restricted during the year following the implementation of unit match-funding associated with a specific donation.

32 Non-controlling interests

Non-controlling interests represent the interests of minority shareholders in the total comprehensive income and net assets of subsidiary companies where the University holds less than 100% of the issued share capital (see Note 35). The movement in non-controlling interests in the statement of comprehensive income and unrestricted reserves of the Group were as follows:

| | Group 2019 £m | Group 2018 £m |
|----------------------------------------------------------------------|---------------------|---------------------|
| Opening balance at 1 August | 1.7 | 0.5 |
| Total comprehensive income attributable to non-controlling interests | 2.2 | 1.7 |
| Acquisition of non-controlling interest | 1.2 | – |
| Dividends paid to non-controlling interests | (1.7) | (0.5) |
| Closing balance at 31 July | 3.4 | 1.7 |

For the year ended 31 July 2019, the total comprehensive income attributable to non-controlling interests was £2.2m (2018: £1.7m) and the unrestricted reserves attributable to non-controlling interests was £3.4m (2018: £1.7m).

33 Capital commitments

| | Group 2019 £m | Group 2018 £m |
|----------------------------------------------|---------------------|---------------------|
| Commitments for capital expenditure: | | |
| Commitments contracted at 31 July | 398.2 | 535.5 |
| Authorised but not contracted at 31 July | 102.3 | 174.5 |
| Commitments for capital calls on investments | 449.9 | 505.3 |

34 Pension schemes

The two principal pension schemes for the University's staff are the Universities Superannuation Scheme (USS) and the Cambridge University Assistants' Contributory Pension Scheme (CPS). The USS and the CPS are not closed, nor is the age profile of their active membership rising significantly.

Cambridge University Press operates two pension schemes for its UK staff, the Press Contributory Pension Fund (PCPF) and the Press Senior Staff Pension Scheme (PSSPS). The PCPF and the PSSPS have been closed to new members.

The assets of the schemes are held in separate trustee-administered funds. The schemes are defined benefit schemes, with the exception of USS which is a hybrid pension scheme, and are each valued every three years using the projected unit method by professionally qualified actuaries, the rates of contribution payable being determined by the trustees on the advice of the actuaries.

Universities Superannuation Scheme (USS)

The University participates in the Universities Superannuation Scheme. The scheme is a hybrid pension scheme, providing defined benefits (for all members), as well as defined contribution benefits. Because of the mutual nature of the scheme, the scheme's assets are not attributed to individual institutions and a scheme-wide contribution rate is set. The University is therefore exposed to actuarial risks associated with other institutions' employees and is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis. As required by Section 28 of FRS 102 'Employee Benefits' the University therefore accounts for the scheme as if it were a wholly defined contribution scheme. As a result, the amount charged to the statement of comprehensive income represents contributions payable to the scheme. Since the University has entered into an agreement (the Recovery Plan) that determines how each employer within the scheme will fund the overall deficit, the University recognises a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and therefore an expense is recognised.

The total cost charged to the statement of comprehensive income is £316.1m (2018: £93.8m).

The latest available complete actuarial valuation of the Retirement Income Builder section of the scheme is at 31 March 2017 (the valuation date), which was carried out using the projected unit method. At the year end a valuation as at 31 March 2018 was underway but not yet complete.

Since the University cannot identify its share of USS Retirement Income Builder section of the scheme assets and liabilities, the following disclosures reflect those relevant for the section as a whole.

The 2017 valuation was the fourth valuation for the 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 £60.0bn and the value of the scheme's technical provisions was £67.5bn indicating a shortfall of £7.5bn and a funding ratio of 89%.

The key assumptions used in the 2017 valuation are described below. More detail is set out in the Statement of Funding Principles.

| | |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Discount rate (forward rates) | Years 1-10: CPI - 0.53% reducing linearly to CPI - 1.32% Years 11-20: CPI + 2.56% reducing linearly to CPI + 1.7% by year 21 Years 21 +: CPI + 1.7% |
| Pension increase (CPI) | Term dependent rates in line with the difference between the Fixed Interest and Index Linked yield curves, less 1.3% p.a. |

The main demographic assumption used relates to the mortality assumptions. These assumptions are based on analysis of the scheme's experience carried out as part of the 2017 actuarial valuation. The mortality assumptions used in these figures are as follows:

| | |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mortality base table | 2017 Valuation <u>Pre-retirement:</u> 71% of AMC00 (duration 0) for males and 112% of AFC00 (duration 0) for females. <u>Post-retirement:</u> 96.5% of SAPS S1NMA 'light' for males and 101.3% of RFV00 for females. |
| Future improvements to mortality | CMI_2016 with a smoothing parameter of 8.5 and a long term improvement rate of 1.8% p.a. for males and 1.6% p.a. for females. |

34 Pension schemes (continued)

The current life expectancies on retirement at age 65 are:

| | 2019 | 2018 |
|-----------------------------------|------|------|
| Males currently aged 65 (years) | 24.6 | 24.5 |
| Females currently aged 65 (years) | 26.1 | 26.0 |
| Males currently aged 45 (years) | 26.6 | 26.5 |
| Females currently aged 45 (years) | 27.9 | 27.8 |

The funding position of the scheme has since been updated on an FRS 102 basis:

| | 2019 | 2018 |
|------------------------------|---------|---------|
| Scheme assets | £67.4bn | £63.6bn |
| Total scheme liabilities | £79.2bn | £72.0bn |
| FRS 102 total scheme deficit | £11.8bn | £8.4bn |
| FRS 102 total funding level | 85% | 88% |

Key assumptions used are:

| | 2019 | 2018 |
|---------------------------|-------|-------|
| Discount rate | 2.44% | 2.64% |
| Pensionable salary growth | n/a | n/a |
| Pensions increases (CPI) | 2.11% | 2.02% |

A new deficit recovery plan was put in place as part of the 2017 valuation and is set out in the new Schedule of Contributions dated 28 January 2019. This requires payment of 5.0% of salaries over the period 1 April 2020 to 30 June 2034. In accordance with the requirements of FRS 102 and the SORP, the University has made a provision for this contractual commitment to fund the past deficit. In the prior year, the deficit payments were 2.1% of salaries up to March 2031.

This significant increase in deficit contributions has given rise to a substantial increase in the University's deficit provision which has increased from £118.9m to £347.5m as set out in Note 28. £230.7m of this increase is attributable to the changes in the deficit contributions contractual commitment and discount rate. See also Note 13 in respect of significant one-off pension costs.

The 2018 actuarial valuation was finalised after the year end which indicated a shortfall of £3.6bn. Since the year end, following the completion of the 2018 actuarial valuation, a new deficit recovery plan has been agreed. This amends the existing deficit recovery plan as set out in the 2017 valuation Schedule of Contributions. This new plan requires deficit payments of 2.0% of salaries from 1 October 2019 to 30 September 2021 and then payments of 6.0% of salaries from 1 October 2021 to 31 March 2028. As at 31 July 2019 and assuming all other assumptions used to calculate the provision remain unchanged, this would have resulted in a revised provision of £197.4m, a decrease of £150.1m from the current year end provision and a lower charge to the statement of comprehensive income of £80.6m.

Cambridge University Assistants' Contributory Pension Scheme (CPS)

The CPS was established under the authority of the Universities of Oxford and Cambridge Act 1923. It is a registered pension scheme for the purposes of the Finance Act 2004. The active members of the scheme are employees of the University and its subsidiary undertakings.

Triennial valuation of the scheme

A full triennial valuation of the scheme was carried out by the actuary for the trustees of the scheme for funding purposes as at 31 July 2018. The results showed the actuarial value of the scheme's assets as £708m. These were insufficient to cover the scheme's past service liabilities of £743m; the scheme had a deficit of £35m and was 95% funded.

Since 1 August 2013 employer contributions have been set at 11.5% of pensionable pay for existing members at 31 December 2012 and 5.8% of pensionable pay (together with contributions at 5.0% to a separate defined contribution arrangement) for new entrants from 1 January 2013. In addition fixed employer contributions totalling £14.6m per annum are payable over the period from 1 August 2011 to 31 July 2020. These payments are subject to review at the next funding valuation due as at 31 July 2021.

CPS: Pension costs under FRS 102

The liabilities of the plan have been calculated for the purposes of FRS 102 based on the calculations undertaken for the funding actuarial valuation as at 31 July 2018, allowing for the different assumptions required under FRS 102 and taking fully into consideration changes in the plan benefit structure and membership since that date. The FRS 102 valuation allows for additional CPS pension liability arising from the impact of equalising Guaranteed Minimum Pensions (GMPs) between men and women. The Lloyds Bank High Court Ruling on 26 October 2018 confirmed that GMPs should be equalised from the date of the Barber judgement (17 May 1990).

Notes to the accounts for the year ended 31 July 2019 (continued)

34 Pension schemes (continued)

CPS: Pension costs under FRS 102 (continued)

The principal assumptions used by the actuary were:

| | 2019 | 2018 |
|----------------------------------------------------------------------------|-------|-------|
| Discount rate | 2.10% | 2.70% |
| Rate of increase in salaries | 4.20% | 4.05% |
| Rate of increase in pensions in deferment | 3.40% | 3.25% |
| Rate of increase in pensions in payment | 3.40% | 3.25% |
| Mortality - equivalent life expectancy for members reaching the age of 65: | | |
| Males currently aged 65 | 85 | 85 |
| Males currently aged 45 | 86 | 87 |
| Females currently aged 65 | 89 | 90 |
| Females currently aged 45 | 91 | 91 |

The following results were measured in accordance with the requirements of FRS 102, based on the assumptions summarised above:

| | Present value of defined benefit obligation | | Fair value of scheme assets | | Net liability recognised in the balance sheet | |
|-------------------------------------------|---------------------------------------------|------------------|-----------------------------|--------------|-----------------------------------------------|----------------|
| | 2019 | 2018 | 2019 | 2018 | 2019 | 2018 |
| | £m | £m | £m | £m | £m | £m |
| Opening | (1,151.0) | (1,182.4) | 708.2 | 660.0 | (442.8) | (522.4) |
| Current service cost | (30.1) | (33.5) | – | – | (30.1) | (33.5) |
| Past service cost | (5.8) | – | – | – | (5.8) | – |
| Administrative expenses paid | – | – | (1.0) | (1.0) | (1.0) | (1.0) |
| Employer contributions | – | – | 28.5 | 28.4 | 28.5 | 28.4 |
| Contributions by members | (0.5) | (0.5) | 0.5 | 0.5 | – | – |
| Benefits paid | 23.8 | 23.6 | (23.8) | (23.6) | – | – |
| Interest income / (expense) | (31.2) | (30.3) | 19.1 | 16.9 | (12.1) | (13.4) |
| Remeasurement gains / (losses): | | | | | | |
| Actuarial gains / (losses) | (164.5) | 72.1 | – | – | (164.5) | 72.1 |
| Expected less actual plan expenses | – | – | (0.6) | (0.1) | (0.6) | (0.1) |
| Return on assets excluding interest | – | – | (4.6) | 27.1 | (4.6) | 27.1 |
| Closing defined benefit obligation | (1,359.3) | (1,151.0) | 726.3 | 708.2 | (633.0) | (442.8) |

The movement for the year in the net pension liability is reflected in Note 28.

| | 2019 | 2018 |
|----------------------------------------------------|-------------|-------------|
| The total cost recognised in expenditure was (£m): | | |
| Current service cost | 30.1 | 33.5 |
| Past service cost | 5.8 | – |
| Administrative expenses | 1.0 | 1.0 |
| Interest cost | 12.1 | 13.4 |
| | 49.0 | 47.9 |

The fair values of the major categories of scheme assets expressed as a percentage of the total were:

| | | |
|--------------------------|---------------|---------------|
| Equities and hedge funds | 67.0% | 71.1% |
| Bonds and cash | 23.2% | 19.2% |
| Property | 9.8% | 9.7% |
| | 100.0% | 100.0% |

The return on the scheme's assets was (£m):

| | | |
|--------------------------------------------|-------------|-------------|
| Interest income | 19.1 | 16.9 |
| Return on assets excluding interest income | (4.6) | 27.1 |
| | 14.5 | 44.0 |

Cambridge University Press UK defined benefit schemes (PCPF and PSSPS)

Triennial valuation of the schemes

Full triennial valuations of the schemes were carried out by the actuary for the trustees of the schemes for funding purposes as at 1 January 2016.

34 Pension schemes (continued)

Cambridge University Press UK defined benefit schemes (PCPF and PSSPS) (continued)

Pension costs under FRS 102

For accounting purposes the schemes' assets are measured at fair value and liabilities are valued using the attained age method and discounted using the gross redemption yield for corporate AA rated bonds. The valuations use market-based assumptions and asset valuations, and represent current valuations. They do not impact on the joint contribution rates set by the trustees of the schemes. The actuary has updated the 1 January 2016 valuation to 31 July 2017 for the purposes of these financial statements. The principal assumptions used by the actuary for both schemes were:

| | | |
|-------------------------------------------------------------------------------|--------------|-------|
| | 2019 | 2018 |
| Discount rate | 2.10% | 2.70% |
| Rate of increase in salaries - schemes are now on frozen current salary basis | 0.00% | 0.00% |
| Rate of increase in pensions in deferment | 3.80% | 3.50% |
| Rate of increase in pensions in payment | 3.80% | 3.50% |
| Mortality - equivalent life expectancy for members at age 60: | | |
| Males | 86 | 87 |
| Females | 89 | 89 |

The following results were measured in accordance with the requirements of FRS 102, based on the assumptions summarised above. The results for the two schemes have been amalgamated.

| | Present value of defined benefit obligation | | Fair value of scheme assets | | Net liability recognised in the balance sheet | |
|-------------------------------------------|---------------------------------------------|---------|-----------------------------|--------|-----------------------------------------------|--------|
| | 2019 | 2018 | 2019 | 2018 | 2019 | 2018 |
| | £m | £m | £m | £m | £m | £m |
| Opening | (323.9) | (336.8) | 249.9 | 241.9 | (74.0) | (94.9) |
| Current service cost | (1.5) | (1.7) | – | – | (1.5) | (1.7) |
| Employer contributions | – | – | 4.5 | 4.6 | 4.5 | 4.6 |
| Contributions by members | (0.1) | (0.1) | 0.1 | 0.1 | – | – |
| Benefits paid | 12.5 | 11.8 | (12.5) | (11.8) | – | – |
| Interest income / (expense) | (8.5) | (8.5) | 6.6 | 6.1 | (1.9) | (2.4) |
| Remeasurement gains: | | | | | | |
| Actuarial gains | (37.8) | 11.4 | 2.3 | 9.0 | (35.5) | 20.4 |
| Closing defined benefit obligation | (359.3) | (323.9) | 250.9 | 249.9 | (108.4) | (74.0) |

The movement for the year in the net pension liability is reflected in note 28. The above table excludes the US pension schemes net surplus relating to the Press's US Defined Benefit Plans of £0.3m (2018: £0.6m). The US schemes are included in the other pensions disclosure in Note 28.

The total cost recognised in expenditure was (£m):

| | | |
|----------------------|-------------|------|
| | 2019 | 2018 |
| Current service cost | 1.5 | 1.7 |
| Interest cost | 1.9 | 2.4 |
| | 3.4 | 4.1 |

The fair values of the major categories of scheme assets expressed as a percentage of the total were:

| | | |
|-------------------------|---------------|--------|
| Equities | 39.1% | 39.0% |
| Gilts | 0.0% | 0.0% |
| Property | 6.6% | 6.9% |
| Cash and annuities | 0.6% | 1.1% |
| Diversified growth fund | 34.9% | 34.2% |
| Diversified credit fund | 18.8% | 18.8% |
| | 100.0% | 100.0% |

The return on the scheme's assets was:

| | | |
|----------------------|------------|-----|
| Interest income (£m) | 6.6 | 6.1 |
|----------------------|------------|-----|

The University also has a smaller number of staff in other pension schemes, including the National Health Service Pension Scheme (NHSPS) and the Local Government Pension Scheme (LGPS). These pension schemes are amalgamated in the other pensions disclosure in Note 28. No further disclosures are provided as the balances are not material.

Notes to the accounts for the year ended 31 July 2019 (continued)

34 Pension schemes (continued)

The total Group pension cost for the year (see Note 13) was:

| | Employer contributions | Provisions (Note 28) | Total | Employer contributions | Provisions (Note 28) | Total |
|-----------------------|------------------------|----------------------|--------------|------------------------|----------------------|-------|
| | 2019 | 2019 | 2019 | 2018 | 2018 | 2018 |
| | £m | £m | £m | £m | £m | £m |
| USS | 91.0 | 225.1 | 316.1 | 97.3 | (3.5) | 93.8 |
| CPS | 25.3 | 8.4 | 33.7 | 29.2 | 6.1 | 35.3 |
| PCPF | 2.5 | (0.8) | 1.7 | 2.2 | (0.8) | 1.4 |
| PSSPS | 2.3 | (2.2) | 0.1 | 2.4 | (2.2) | 0.2 |
| NHSPS | 2.3 | – | 2.3 | 2.3 | – | 2.3 |
| Other pension schemes | 8.3 | 0.3 | 8.6 | 8.7 | 0.1 | 8.8 |
| | 131.7 | 230.8 | 362.5 | 142.1 | (0.3) | 141.8 |

35 Principal subsidiary and associated undertakings and other significant investments

The following undertakings were subsidiary and associated undertakings during the year ended 31 July 2019. Except where stated, the accounting reference date is 31 July and the undertaking is a wholly-owned company registered in England and Wales.

| Name | Notes | Principal activity |
|---------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------|
| Cambridge Centre for Advanced Research and Education in Singapore Limited | a | Research and development |
| Cambridge Enterprise Limited | | Consultancy and commercial exploitation of intellectual property |
| IFM Education and Consultancy Services Limited | | Consultancy and commercial exploitation of intellectual property |
| Cambridge Investment Limited | | Land development |
| Cambridge Investment Management Limited | | Investment management |
| Cambridge Sustainability Ltd | | Sustainability leadership programmes |
| Cambridge Institute for Sustainability Leadership (Australia) | b | Sustainability leadership programmes |
| Cambridge Institute for Sustainability Leadership (South Africa) NPC | c | Sustainability leadership programmes |
| Cambridge Institute for Sustainability Leadership (Belgium) | d | Sustainability leadership programmes |
| Cambridge University Technical Services Limited | | Consultancy and commercial exploitation of intellectual property |
| The Dennis S Avery and Sally Tsui Wong-Avery Endowment Trust | e | Advancement of education and research in cosmology at the University |
| Fitzwilliam Museum (Enterprises) Limited | | Publication of fine art books and sale of museum merchandise |
| JBS Executive Education Limited | | Corporate education services |
| Lynxvale Limited | | Construction and development services |
| UTS Cambridge | | Primary school education |
| Cambridge ClassServer LLP | f | Development and commercialisation of digital educational material for China |
| English Language iTutoring Limited | g | Commercialisation of provision of automated tutoring and assessment in learning of English as a foreign language |
| Portal Estate Management | | Management and maintenance of the North West Cambridge estate |
| Core Sustainable Heat Management Limited | | North West Cambridge estate hot water and heating services |
| Lodge Property Services Ltd | | North West Cambridge estate letting and accommodation services |
| Storey's Field Community Trust | h | Operational management services for the North West Cambridge estate community centre |
| Foundation for Genomics and Population Health | e, ag | Provision of biological research |
| Cambridge University International Holdings Limited | | Holding company for overseas projects |
| Cambridge India Research Foundation | o | Research and development |
| Cambridge University Research and Innovation (Nanjing) Ltd | p | Research and development |
| Cambridge University Nanjing Centre of Technology and Innovation Ltd | p | Research and development |

35 Principal subsidiary and associated undertakings and other significant investments (continued)

Associated Trusts

| | | |
|----------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------|
| Cambridge Commonwealth, European and International Trust | e | Provision of scholarships, grants and other support for the education of UK and overseas students in the University |
| Gates Cambridge Trust | | |
| Malaysian Commonwealth Studies Centre in Cambridge | ah | |

Cambridge Assessment subsidiary undertakings

| | | |
|----------------------------------------------------------------|---|--------------------------|
| Cambridge Assessment Overseas Limited | | Overseas office services |
| Cambridge Assessment Singapore | i | Overseas office services |
| Cambridge Avaliacao Representacao e Promocao Ltda | j | Overseas office services |
| Cambridge Consulting (Beijing) Co. Ltd | k | Overseas office services |
| Cambridge Assessment Inc | l | Overseas office services |
| Cambridge English (Aus) | m | Overseas office services |
| Cambridge Boxhill Language Pty Limited | m | Examination services |
| Cambridge Michigan Language Assessment LLC (USA) | n | Examination services |
| Cambridge Assessment India Private Limited | o | Overseas office services |
| Cambridge Assessment Pakistan Private Limited | q | Overseas office services |
| Fundacion UCLES | r | Overseas office services |
| Oxford and Cambridge International Assessment Services Limited | | Overseas office services |
| The West Midlands Examinations Board | | Examination services |
| Oxford Cambridge and RSA Examinations | e | Examination services |
| Cambridge Assessment Japan Foundation | s | Examination services |
| IELTS Inc USA | t | Examination services |
| IELTS UK Services Ltd | u | Examination services |

Cambridge University Press subsidiary undertakings

| | | |
|---------------------------------------------------------------------|----|------------------------------------------------------------------------|
| Academic Journal Publishing Pty Limited | m | Intermediate holding company |
| Australian Academic Press Pty Limited | m | Non-trading |
| Cambridge Daigaku Shuppan KK | w | Sales support office for the Japanese market |
| Cambridge Knowledge (China) Limited | x | Sales support office for the Chinese market |
| Cambridge University Press (Greece) MEPE | y | Sales support office for the Greek, Cypriot and Mediterranean market |
| Cambridge University Press (Holdings) Limited | | Multi-activity holding company |
| Cambridge University Press India Private Limited | o | Academic and educational book publisher & distributor for India |
| Cambridge University Press Nigeria Limited | z | Educational book publisher & distributor for Nigeria |
| Cambridge University Press Operations Limited | | Publishing services company |
| Cambridge University Press Satış ve Dağıtım Ticaret Limited Şirketi | aa | Non-trading |
| Cambridge University Press Turkey Satış Destek Limited Sirketi | aa | Sales support office for the Turkish market |
| Cambridge University Press South Africa Proprietary Limited | ab | Academic and educational book publisher & distributor for South Africa |
| Cambridge Learning Limited | | Non-trading |
| Editorial Edicambridge Cia Ltda | ac | Sales support office for the Ecuadorian market |
| Digital Services Cambridge Limited | | Software development, infrastructure and business services |
| ELT Trading SA de CV | ad | Distribution company (Mexico and Latin America) |
| HOTmaths Pty Limited | ae | |
| United Publishers Services Limited | x | Non-trading |
| Oncoweb Limited | | Non-trading intermediate holding company |
| Cambridge-Obeikan Company Limited | af | Academic and educational book distributor |

35 Principal subsidiary and associated undertakings and other significant investments (continued)

- a Cambridge Centre for Advanced Research and Education in Singapore Limited is incorporated in Singapore and has an accounting reference date of 31 March for commercial reasons. The effect of this is not material to the consolidated accounts.
- b Cambridge Institute for Sustainability Leadership (Australia) is incorporated in Australia and has an accounting reference date of 30 June for commercial reasons. The effect of this is not material to the consolidated accounts.
- c Cambridge Institute for Sustainability Leadership (South Africa) is incorporated in South Africa.
- d Cambridge Institute for Sustainability Leadership (Belgium) is incorporated in Belgium.
- e These entities are exempt charities established by trust deeds.
- f Cambridge ClassServer LLP is a limited liability partnership registered in England and Wales, in which the University has a two-thirds interest acting through Cambridge Assessment and Cambridge University Press.
- g English Language iTutoring Limited is a limited company registered in England and Wales, in which the University has a 50% interest acting through Cambridge Assessment and Cambridge University Press.
- h Joint venture arrangement between the University and Cambridge City Council, with the University holding a 50% interest in the company which is limited by guarantee and registered in England and Wales.
- i Cambridge Assessment Singapore is incorporated in Singapore.
- j Cambridge Avaliacao Representacao e Promocao Ltda is incorporated in Brazil.
- k Cambridge Consulting (Beijing) Co. Ltd is incorporated in China.
- l Cambridge Assessment Inc is a United States non-stock non-profit corporation.
- m Cambridge English (Aus), Cambridge Boxhill Language Pty Limited, Academic Journal Publishing Pty Limited and Australian Academic Press Pty Limited are incorporated in Australia.
- n Cambridge Michigan Language Assessment LLC (USA) is 65% owned by Cambridge Assessment Inc and is incorporated in the United States.
- o Cambridge India Research Foundation, Cambridge Assessment India Private Limited and Cambridge University Press India Private Limited are incorporated in India.
- p Cambridge University Research and Innovation (Nanjing) Ltd and Cambridge University Nanjing Centre of Technology and Innovation Ltd are incorporated in China and have an accounting reference date of 31 December. Cambridge University Nanjing Centre of Technology and Innovation Ltd is 50% owned by Cambridge University Research and Innovation (Nanjing) Ltd.
- q Cambridge Assessment Pakistan Private Limited is incorporated in Pakistan.
- r Fundacion UCLES is incorporated in Spain.
- s Cambridge Assessment Japan Foundation is 60% owned and incorporated in Japan.
- t IELTS Inc USA is incorporated in the United States and is 33% owned by Cambridge Assessment.
- u IELTS UK Services Ltd is 33% owned by Cambridge Assessment.
- v Cambridge University Press subsidiary undertakings have an accounting reference date of 30 April for commercial reasons, with the exceptions of the companies incorporated in India (31 March) and Mexico (31 December).
- w Cambridge Daigaku Shuppan KK is incorporated in Japan.
- x Cambridge Knowledge (China) Limited and United Publishers Services Limited are incorporated in Hong Kong.
- y Cambridge University Press (Greece) MEPE is incorporated in Greece.
- z Cambridge University Press Nigeria Limited is incorporated in Nigeria.
- aa Cambridge University Press Satış ve Dağıtım Ticaret Limited Şirketi and Cambridge University Press Turkey Satis Destek Limited Sirket are incorporated in Turkey.
- ab Cambridge University Press South Africa Proprietary Limited is a 75% subsidiary incorporated in South Africa.
- ac Editorial Edicambridge Cia Ltda is incorporated in Ecuador.
- ad ELT Trading SA de CV is incorporated in Mexico.
- ae HOTmaths Pty Limited is a 55% subsidiary incorporated in Australia.
- af Cambridge-Obeikan Company Limited is incorporated in Saudi Arabia.
- ag Foundation for Genomics and Population Health has an accounting reference date of 31 March. The Foundation was acquired on 1 April 2018 for nil consideration resulting in a profit on acquisition recognised in 2017-18 of £1.6m.
- ah Malaysian Commonwealth Studies Centre in Cambridge was deconsolidated from the consolidated accounts of the University from 1 August 2018. Following ceasing to be a Trustee, the net assets of the Trust were deconsolidated for nil consideration resulting in a loss of £1.9m.

35 Principal subsidiary and associated undertakings and other significant investments (continued)

Other investments

The University has interests in a number of spin-out companies formed to exploit intellectual property rights or inventions. These are included at valuation in non-current asset investments (see Note 21). In some cases the University's interest amounted to 20% or more of the share capital at the year end, and these companies are listed below. As the University does not exercise a significant influence over these investments and they are not intended to be held for the long term, they are not accounted for as associated undertakings. Other undertakings where the University's investment amounts to 20% or more are also listed below. These are not accounted for as associated undertakings as the effect on the financial statements would not be material.

| Name | % interest | Principal Activity |
|-------------------------|------------|--------------------------------------------------|
| ROADMap Systems Limited | 21 | Commercial exploitation of intellectual property |
| 8Power | 28 | Commercial exploitation of intellectual property |

In addition, at the year end the University held an interest of 30.69% in Cambridge Innovation Capital plc as part of its investment portfolio. Movements in the carrying value of this investment are included in the consolidated surplus for the year.

36 Related party transactions

Due to the nature of the University's operations and the composition of its Council, it is inevitable that the University will enter into transactions in the normal course of business with Colleges, NHS Trusts, Research Councils, other grant-awarding bodies, and other private and public sector organisations in which members of the Council may have an interest. All transactions involving organisations in which members of Council may have such an interest, including those summarised below, are conducted in accordance with the University's financial regulations and usual procurement procedures. A register of the interests of the members of the Council is maintained.

The financial statements of the University include transactions with:

- (a) entities over which a member of Council or key management personnel (see Note 13) has control or joint control;
- (b) entities over which a member of Council has significant influence; and
- (c) entities of which a member of Council is a member of the key management personnel.

Such transactions are summarised below where they are considered material to the University's financial statements and / or to the other party. The University has taken advantage of the exemption within FRS 102 and has not disclosed transactions with other group entities where it holds 100% of the voting rights.

Transactions with Colleges are summarised in Note 37 below. Included within the financial statements are other transactions with the following related parties:

Gatsby Charitable Foundation

Lord Sainsbury of Turville, who was elected as Chancellor of the University in October 2011, is settlor of the Gatsby Charitable Foundation (Gatsby) and, together with the Gatsby Trustees, is actively involved in setting the Foundation's strategic direction and approving its activities. In 2006 the University approved a proposal to establish a Sainsbury Laboratory for plant science in Cambridge, with Gatsby providing capital funding and research funds over a ten-year period. The Sainsbury Laboratory was completed in the year ended 31 July 2011, with Gatsby capital contributions totalling £74m. Research grants and contracts income for the year ended 31 July 2019 includes £8.9m in respect of continuing grants funded by Gatsby of which £2.0m was included in creditors at the year end. Additionally the University has recognised sales to Gatsby of £99,000 and made payments to Gatsby of £87,000 in the year.

Cambridge University Students' Union

The President of the Students' Union was also a member of the University's Council for the 2018-19 financial year. Under *Statutes and Ordinances*, Chapter II, the University has discretion to provide financial assistance to the Union and, in the year ended 31 July 2019, provided a grant of £350,000 and made other payments totalling £34,000 for services provided, of which £25,000 was included in creditors at the year end. The Union made payments to the University totalling £5,000 for temporary staff, network and other services provided.

University of Cambridge Graduate Union

The President of the Graduate Union was also a member of the University's Council for the 2018-19 financial year. The Union made payments to the University totalling £11,000 for services provided in the year ended 31 July 2019 of which £1,000 was included in debtors at the year end. The University also paid for services provided by the Graduate Union amounting to £5,000 during the financial year.

Office of Intercollegiate Services

The Office of Intercollegiate Services (OIS) is responsible primarily for providing support to the 31 Colleges of the collegiate University (Cambridge). A Director of the OIS was also a member of the University's Council for the year ended 31 July 2019. In 2018-19 the University made payments to the OIS amounting to £3,377,000 relating to contributions to the Vice-Chancellor's Fund and the Cambridge Admissions Office. In addition, services were provided by the University to the OIS during the 2018-19 financial year amounting to £37,000.

36 Related party transactions (continued)

Corpus Conferences Ltd

A member of the University's Council was also a Director of Corpus Conferences Ltd during 2018-19 which provides event catering services on behalf of Corpus Christi College. The University made payments to the company for conference-related services amounting to £41,000 during the 2018-19 financial year, of which £8,700 was included in creditors at the year end.

King's College Cambridge Developments Ltd

King's College Cambridge Development Ltd manages property development activities for King's College, Cambridge. A member of the University's Council was also a Director of King's College Cambridge Developments Ltd during 2018-19. The University provided services to the company amounting to £17,000 during the 2018-19 financial year.

Cambridge University Health Partners Ltd (CUHP)

CUHP is a partnership organisation managing an academic health science centre which brings together the University, Cambridge University Hospitals NHS Foundation Trust and Papworth Hospital NHS Foundation Trust. A member of the University's Council and a member of the Registry team supporting the University's Council were Directors of CUHP during 2018-19. The University received research funding of £6,500 during the financial year, of which £3,000 was included in debtors at the year end. In addition, the University also provided services to the organisation amounting to £4,000 during the year.

37 Colleges

There are 31 Colleges, each of which is an independent corporation with its own property and income. Each College publishes its own financial statements in a form specified by the University.

During the year the University paid the Colleges sums totalling £73.8m (2018: £70.1m) under the terms of agreements between the University and the Colleges to share fee income with the Colleges in a way that recognises the relative contributions of the University and the Colleges. These payments are included as "Payments to Colleges" in Note 14 above.

The University distributed third party donations to the Colleges totalling £27.9m (2018: £10.0m); these payments are not included in the consolidated statement of comprehensive income. During the year the University provided printing, network and other services to the Colleges for which the Colleges paid a total of £5.5m (2018: £6.7m), and the Colleges provided accommodation, catering and other services to the University for which the University paid a total of £14.4m (2018: £14.7m). During the year the Colleges made donations to the University totalling £4.0m (2018: £5.0m).

Current asset investments include £334.3m (2018: £411.6m) held on behalf of 16 (2018: 16) Colleges in the form of CUEF units (see Note 24), £9.8m (2018: £13.8m) held on behalf of the Isaac Newton Trust and £3.8m (2018: £2.8m) held on behalf of other associated bodies.

| Colleges Fund | 2019 | 2018 |
|---------------------------------------------------|--------------|-------|
| | £m | £m |
| Balance at 1 August | - | - |
| Contributions received from Colleges | 4.7 | 4.5 |
| Interest earned | - | - |
| Payments to Colleges | (4.7) | (4.5) |
| Balance at 31 July (included in creditors) | - | - |

The Colleges Fund is administered by the University on behalf of the Colleges, which make all contributions to and receive all allocations from the Fund. The transactions on the Colleges Fund are not included in the statement of comprehensive income.

38 Financial risk management

In the ordinary course of its activities, the University manages a variety of financial risks including credit risk, liquidity risk, currency risk and market risk. The principal risks and the University's approach to managing them are set out below. In view of the significance of the Cambridge University Endowment Fund (CUEF, see Note 11), some aspects of financial risk management are considered for CUEF and non-CUEF separately.

Through the CUEF, the University invests in various categories of assets for the long term in order to achieve the CUEF's investment objective. The University has recently adjusted its long-term investment objective to generate an average 5.0% p.a. return over the Consumer Price Index (CPI). The CUEF is managed by the University's Investment Office on behalf of Cambridge Investment Management Limited, with the oversight of the University's Investment Board. In order to pursue its investment objective the CUEF seeks exposure to a variety of risks. This exposure could result in a reduction in the University's net assets.

a Credit risk

Credit risk is the risk that the University would incur a financial loss if a counterparty were to fail to discharge its obligations to the University.

Credit risk exposure

The University is exposed to credit risk in respect of its financial assets held with various counterparties. The following table details the maximum exposure to credit risk at 31 July:

| | 2019 £m | 2018 £m |
|------------------------------------------------------|----------------|----------------|
| Investment cash balances | 27.7 | 116.4 |
| Trade debtors: invoices receivable | 224.6 | 201.2 |
| Research grants recoverable | 129.4 | 124.0 |
| Other debtors | 109.2 | 93.0 |
| Money market investments | 820.2 | 856.7 |
| Cash at bank | 86.4 | 75.7 |
| Total financial assets exposed to credit risk | 1,397.5 | 1,467.0 |

Of the above financial assets only certain trade debtors and research grants recoverable, as detailed below, were past their due date or were impaired during the year.

| | | |
|---------------------------------------------------------------------------------|--------------|--------------|
| Trade and research debtors: outstanding invoices and uninvoiced research grants | 367.9 | 331.5 |
| Less: Provision for impairment of receivables | (13.9) | (6.3) |
| | 354.0 | 325.2 |

Trade debtors that are less than three months past their due date are not considered impaired unless they are included in the specific provision. At 31 July 2019, trade and research grant debtors with a carrying value of £62.1m (2018: £59.0m) were past their due date but not impaired.

| | 2019 £m | 2018 £m |
|--------------------------------------------------|--------------|--------------|
| Balances against which a provision has been made | 13.9 | 11.0 |
| Uninvoiced research grants recoverable | 76.6 | 67.2 |
| Balances not past their due date | 215.3 | 194.3 |
| Up to 3 months past due | 38.5 | 45.6 |
| 3 to 6 months past due | 13.8 | 6.3 |
| Over 6 months past due | 9.8 | 7.1 |
| | 367.9 | 331.5 |

Movement on provision for impairment of receivables

| | Trade Debtors | | Research Debtors | | Total | |
|-----------------------------------|---------------|------------|------------------|------------|-------------|------------|
| | 2019 £m | 2018 £m | 2019 £m | 2018 £m | 2019 £m | 2018 £m |
| Opening balance | 2.9 | 4.8 | 3.4 | 2.4 | 6.3 | 7.2 |
| Provided in year | 3.2 | 1.6 | 10.1 | 1.0 | 13.3 | 2.6 |
| Balances written off | (3.0) | (3.5) | (2.7) | – | (5.7) | (3.5) |
| Closing balance at 31 July | 3.1 | 2.9 | 10.8 | 3.4 | 13.9 | 6.3 |

38 Financial risk management

a Credit risk (continued)

Risk management policies and procedures

The University aims to minimise its counterparty credit risk exposure by monitoring the size of its credit exposure to, and the creditworthiness of, counterparties, including setting appropriate exposure limits and maturities. The creditworthiness and financial strength of trading customers and research sponsors is assessed at inception and on an ongoing basis. Counterparties for investment assets and bank accounts are selected based on their financial ratings, regulatory environments and specific circumstances.

In respect of the CUEF, fund managers appointed by the CUEF have responsibility for choosing reliable counterparties. Where CUEF investments are managed directly by the University, investment transactions are carried out with well established, approved brokers. Investment transactions are done on a cash against receipt or cash against delivery basis.

Term deposits and cash balances outside the CUEF are subject to authorised limits and rating criteria which are subject to annual review.

The ratings of term deposits and cash balances at 31 July were as follows:

| | 2019 | 2018 |
|--------------------------------------------------------|--------------|-------|
| | £m | £m |
| Fitch credit quality rating (short / long term) | | |
| AAF/S2 | 300.6 | – |
| F1+ / AA Highest / Very High | – | 7.4 |
| F1+ / AA - Highest / Very High | 199.8 | 249.5 |
| F1 / A+ Highest / High | 192.9 | 288.6 |
| F1 / A Highest / High | 135.1 | 276.9 |
| F1 / A - Highest / High | 35.5 | 63.9 |
| F2 / A - Good / High | 30.0 | 0.1 |
| F2 / BBB+ Good / Good | 1.4 | 30.1 |
| F3 / BBB Fair / Good | 1.2 | 0.9 |
| Lower ratings | 10.1 | 15.0 |
| | 906.6 | 932.4 |

b Liquidity risk

Liquidity risk is the risk that the University will encounter difficulties raising cash to meet its obligations when they fall due. Obligations are associated with financial liabilities and capital commitments.

Risk management policies and procedures

The majority of the assets held by the CUEF are investments in quoted securities and in funds that are readily realisable. For those CUEF assets which are not readily realisable (typically requiring more than six months to realise) and where the CUEF has commitments to provide additional capital to private investments held within the portfolio on short notice there is risk mitigation in place. Limits are set for the extent of outstanding capital commitments in the CUEF and there is regular monitoring of the amounts of distributions and redemptions required and the extent of unpaid capital commitments to private investments, compared to actual and potential liquidity of the CUEF. While CUEF assets are not available to fund obligations beyond those of the CUEF, there is no significant liquidity risk in relation to the CUEF itself.

Outside the CUEF, the Group monitors its exposure to liquidity risk by regularly monitoring its liabilities and commitments and holding appropriate levels of liquid assets. The Finance Committee approves the Liquidity Policy periodically. Liquidity and cash forecasts are reviewed by the Director of Finance on a quarterly basis. Cash and short-term deposits are maintained at levels sufficient to fund three months' operational and capital expenditure. Short-term deposits are placed with various terms between call and six months.

38 Financial risk management

b Liquidity risk (continued)

The following tables summarise the maturity of the Group's undiscounted contractual payments.

| | Three months or less £m | Between three months and one year £m | Between one and five years £m | More than five years £m | Total £m |
|------------------------------------------------------|----------------------------------|--------------------------------------------------|----------------------------------------|-------------------------------|----------------|
| As at 31 July 2019: | | | | | |
| Bond liabilities | 10.1 | 10.9 | 83.8 | 2,357.2 | 2,462.0 |
| Derivative financial instruments liability positions | 0.4 | 0.8 | – | – | 1.2 |
| Investments held on behalf of others | 2.6 | 347.9 | – | – | 350.5 |
| Finance leases | – | 1.3 | 0.3 | 0.9 | 2.5 |
| Other creditors excluding deferred income | 195.7 | 84.9 | 1.8 | 9.6 | 292.0 |
| Totals at 31 July 2019 | 208.8 | 445.8 | 85.9 | 2,367.7 | 3,108.2 |
| As at 31 July 2018: | | | | | |
| Bond liabilities | 10.1 | 10.8 | 83.7 | 2,266.2 | 2,370.8 |
| Investments held on behalf of others | 440.8 | – | – | – | 440.8 |
| Bank overdraft | 14.0 | – | – | – | 14.0 |
| Finance leases | – | 1.4 | 1.2 | – | 2.6 |
| Other creditors excluding deferred income | 213.0 | 10.5 | 4.2 | 3.7 | 231.4 |
| Totals at 31 July 2018 | 677.9 | 22.7 | 89.1 | 2,269.9 | 3,059.6 |

Capital commitments, excluded from the above analysis, are disclosed at note 33.

c Market risk

Market risk is the risk of changes to the fair value of the Group's financial instruments. Market risk embodies the potential for both losses and gains and includes currency risk, interest rate risk and other price risk.

CUEF

The Investment Board advises the Council and is made up of investment professionals. The Investment Board monitors the performance of the Investment Office as well as providing advice to it. Investments in the CUEF are selected and combined with the aim of optimising the future long-term total return bearing in mind the expected future volatility of the return. The risk taken in order to meet the total return objective is managed by utilising diversification of investment strategies, of investment asset classes and of external investment managers. The CUEF operates an evolving asset allocation, in the context of a long-term direction. The proposed changes over the following twelve months are revised quarterly in discussion with the Investment Board. Within each asset class, fund managers are appointed and carry out the day-to-day investment transactions.

c (i) Currency risk

Currency risk is the risk that the value of an asset or liability will fluctuate due to changes to foreign currency exchange rates. The functional currency of the University and the presentational currency of the Group is Sterling. However, the Group has investment assets denominated in currencies other than Sterling and is impacted by fluctuations in foreign currency exchange rates.

At 31 July the CUEF had the following principal net exposures:

| | | |
|-----------------|---------------|--------|
| | 2019 | 2018 |
| Pounds Sterling | 43.4% | 48.3% |
| US Dollar | 47.5% | 41.5% |
| Euro | 1.8% | 1.7% |
| Japanese Yen | 3.1% | 3.8% |
| Other currency | 4.2% | 4.7% |
| | 100.0% | 100.0% |

Notes to the accounts for the year ended 31 July 2019 (continued)

38 Financial risk management

c (i) Currency risk (continued)

The currency exposure for overseas investments is based on the quotation or reporting currency of each holding, while the currency exposure for net monetary assets is based on the currency in which each asset or liability is denominated.

The following table summarises the significant assets and liabilities exposed to currency risk as at 31 July 2019:

| | US Dollar \$m | Euro €m | US Dollar £m | Euro £m | Other £m | Total £m |
|-----------------------------------------------------|------------------|--------------|-----------------|--------------|--------------|----------------|
| CUEF investment assets excluding currency contracts | 2,539.6 | 185.3 | 2,083.2 | 169.4 | 319.8 | 2,572.4 |
| CUEF forward currency contracts | (540.3) | (115.2) | (443.2) | (105.3) | (68.3) | (616.8) |
| Net exposure of CUEF | 1,999.3 | 70.1 | 1,640.0 | 64.1 | 251.5 | 1,955.6 |
| Exposures outside CUEF: | | | | | | |
| Debtors | 55.1 | 39.6 | 45.2 | 36.2 | 38.5 | 119.9 |
| Cash balances | 20.0 | 12.0 | 16.4 | 11.0 | 28.3 | 55.7 |
| Creditors including bank and other loans | (30.0) | (10.1) | (24.6) | (9.2) | (21.4) | (55.2) |
| Forward currency contracts | (0.9) | (0.5) | (0.7) | (0.5) | – | (1.2) |
| Net exposure | 2,043.5 | 111.1 | 1,676.3 | 101.6 | 296.9 | 2,074.8 |

The impact on total recognised gains for the year 2018-19 of additional 10% variations in the principal exchange rates would have been:

| | |
|----------------------------|-------|
| 10% US Dollar appreciation | 167.6 |
| 10% Euro appreciation | 10.2 |

The following table summarises the significant assets and liabilities exposed to currency risk as at 31 July 2018:

| | US Dollar \$m | Euro €m | US Dollar £m | Euro £m | Other £m | Total £m |
|-----------------------------------------------------|------------------|------------|-----------------|------------|-------------|-------------|
| CUEF investment assets excluding currency contracts | 2,418.4 | 184.2 | 1,843.7 | 164.3 | 346.9 | 2,354.9 |
| CUEF forward currency contracts | (646.5) | (123.6) | (492.9) | (110.2) | (68.6) | (671.7) |
| Net exposure of CUEF | 1,771.9 | 60.6 | 1,350.8 | 54.1 | 278.3 | 1,683.2 |
| Exposures outside CUEF: | | | | | | |
| Debtors | 51.9 | 24.1 | 39.6 | 21.5 | 25.8 | 86.9 |
| Cash balances | 13.1 | 11.9 | 10.0 | 10.6 | 21.9 | 42.5 |
| Creditors including bank and other loans | (38.7) | (8.8) | (29.5) | (7.8) | (19.3) | (56.6) |
| Forward currency contracts | (20.0) | (57.8) | (15.2) | (51.6) | – | (66.8) |
| Net exposure | 1,778.2 | 30.0 | 1,355.7 | 26.8 | 306.7 | 1,689.2 |

The impact on total recognised gains for the year 2017-18 of additional 10% variations in the principal exchange rates would have been:

| | |
|----------------------------|-------|
| 10% US Dollar appreciation | 135.6 |
| 10% Euro appreciation | 2.7 |

Risk management policies and procedures

Currency positions in the assets and liabilities of the CUEF are reviewed regularly by the Chief Investment Officer and the currency exposure is managed within the asset allocation strategy.

38 Financial risk management

c Market risk (continued)

c (ii) Interest rate risk

Interest rate risk arises from the risk that the value of an asset or liability will fluctuate due to changes in market interest rates (ie for fixed interest rate assets or liabilities) or that future cash flows will fluctuate due to changes in interest rates (ie for floating rate assets or liabilities).

Interest rate exposure and sensitivity

As stated in the accounting policies, the University's fixed interest Bond liabilities are measured at amortised cost using the effective interest rate method, rather than at fair value. The University has not invested in variable rate deposits or interest-bearing securities.

Interest rate risk is focused on the potential impact of interest rate changes on the fair value of investments in fixed interest securities.

At 31 July 2019 the University held £0.0m (2018: £0.0m) corporate and overseas government bonds with fixed interest.

Risk management policies and procedures

The University takes into account the possible effects of a change in interest rates on the fair value and cash flows of the interest-bearing financial assets and liabilities when making investment decisions. The CUEF has limited risk exposure to interest rates as there is regular monitoring of the allocations made to fixed interest investments not intended to be held to maturity and confirming there is no fixed interest borrowing.

c (iii) Other price risk

Price risk is the risk that the value of an asset or liability will fluctuate due to changes in market price (other than those arising from currency risk or interest rate risk), caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market.

This is a key risk for the University because of the significance of the endowments and other funds invested in the CUEF and the dependence of future plans on maintaining the value of CUEF units in real terms. Additionally the Indexed Bonds issued in June 2018 are subject to changes in the Consumer Price Index with the fair value of these liabilities fluctuating at each reporting date dependent on the movement in this index.

Concentration of exposure to other price risk

As the majority of the CUEF's investments are carried at fair value, all changes in market conditions will directly affect the University's net assets. The fund's asset allocation at the reporting date is shown in Note 11.

Risk management policies and procedures

The CUEF measures the value of most of its investments on a monthly basis, and the remainder quarterly using market value if available (otherwise fair value). There is regular monitoring of the asset allocation to identify if the current allocation is in line with the actual and intended future allocations agreed with the Investment Board. Variations are then considered as part of the ongoing investment decisions.

39 Fair value

Debtors and current liabilities are stated in the Group balance sheet at book values which are not materially different from their fair values. The fixed interest Bond liabilities are measured at amortised cost of £640.6m (2018: £640.4m, see Note 27) whereas the fair value of the fixed interest Bond liabilities at 31 July 2019 was £848.6m (2018: £785.5m) based on an independent valuation provided by Morgan Stanley.

The Indexed Bond liabilities are measured at fair value at the balance sheet date based on an independent valuation provided by Morgan Stanley.

The book values of the Group's other financial assets and long term liabilities, including pension obligations shown on the balance sheet are the same as the fair values.

Fair value measurements

The following tables categorise the fair values of the Group's investment assets and liabilities based on the inputs to the valuation. Categorisation within the hierarchy has been determined on the basis of the lowest level input that is significant to the fair value measurement of the relevant asset as follows:

Level 1: Valued using quoted prices in active markets for identical assets.

Level 2: Valued by reference to valuation techniques using observable inputs other than quoted prices included within Level 1.

Level 3: Valued by reference to valuation techniques using inputs that are not based on observable market data.

The valuation techniques used are described in more detail in Note 4 (iii) to the Accounts.

Notes to the accounts for the year ended 31 July 2019 (continued)

39 Fair value (continued)

| | Level 1 | Level 2 | Level 3 | Total |
|-------------------------------------------------------------|----------------|----------------|-------------|----------------|
| | £m | £m | £m | £m |
| Investment assets at fair value at 31 July 2019: | | | | |
| CUEF: Quoted investments | 906.5 | 6.5 | – | 913.0 |
| Unquoted investments | – | 2,515.2 | – | 2,515.2 |
| Derivative financial instruments asset positions | – | – | – | – |
| Cash in hand and at investment managers | 27.6 | 0.1 | – | 27.7 |
| Total CUEF assets | 934.1 | 2,521.8 | – | 3,455.9 |
| Other quoted investments | 9.7 | – | – | 9.7 |
| Other unquoted investments | 0.9 | 30.3 | 71.2 | 102.4 |
| Investment properties | – | 547.5 | – | 547.5 |
| Money market investments | 174.1 | – | – | 174.1 |
| Cash in hand and at investment managers | – | – | – | – |
| Total investment assets at fair value | 1,118.8 | 3,099.6 | 71.2 | 4,289.6 |
| Derivative financial instruments liability positions (CUEF) | – | – | – | – |
| Total investments at fair value at 31 July 2019 | 1,118.8 | 3,099.6 | 71.2 | 4,289.6 |
| | Level 1 | Level 2 | Level 3 | Total |
| | £m | £m | £m | £m |
| Investment assets at fair value at 31 July 2018: | | | | |
| CUEF: Quoted investments | 977.5 | 6.3 | – | 983.8 |
| Unquoted investments | – | 2,152.5 | 0.1 | 2,152.6 |
| Derivative financial instruments asset positions | – | – | – | – |
| Cash in hand and at investment managers | 116.4 | – | – | 116.4 |
| Total CUEF assets | 1,093.9 | 2,158.8 | 0.1 | 3,252.8 |
| Other quoted investments | 11.1 | – | – | 11.1 |
| Other unquoted investments | – | 21.7 | 54.9 | 76.6 |
| Investment properties | – | 497.8 | – | 497.8 |
| Money market investments | 63.1 | – | – | 63.1 |
| Cash in hand and at investment managers | 7.2 | – | – | 7.2 |
| Total investment assets at fair value | 1,175.3 | 2,678.3 | 55.0 | 3,908.6 |
| Derivative financial instruments liability positions (CUEF) | – | – | – | – |
| Total investments at fair value at 31 July 2018 | 1,175.3 | 2,678.3 | 55.0 | 3,908.6 |

A reconciliation of the opening and closing balances for Level 3 assets measured at fair value is detailed in the table below:

| | 2019 | 2018 |
|---------------------------------|-------------|-------------|
| | £m | £m |
| Fair value at 1 August | 55.0 | 47.7 |
| Purchases less sales proceeds | (2.2) | (3.6) |
| Total gains | 18.4 | 10.9 |
| Transfers in / (out) of Level 3 | – | – |
| Fair value at 31 July | 71.2 | 55.0 |

Unquoted investments include investments in hedge funds, private equity funds and property funds. The fair values of unquoted investments and derivative financial instruments held through pooled funds and partnerships are based on the custodian's standard policy for all clients whereby the default classification for these assets is Level 2. However, in practice pooled funds' underlying investments span across a range of asset classes, from public-listed equity to difficult-to-value investments whose valuation is subjective and requires a lot of judgement. During the financial year 2019-20, the fund will undertake a review of the fair value hierarchy classifications of individual investments to ensure more precise categorisation. The Council considers that no reasonably foreseeable change to key assumptions in the Level 3 valuations would result in a significant change to fair value.

40 Post balance sheet events

As set out in Note 34 in respect of the USS pension scheme, a new Schedule of Contributions based on the 2018 actuarial valuation has been agreed. This results in a decrease in £150.1m in the provision for the obligation to fund the deficit on the USS pension scheme which would instead be £197.4m. This adjustment will be reflected in the University's financial statements for the year ended 31 July 2020.

Appendix 1

SUMMARY CONSOLIDATED FINANCIAL INFORMATION

Financial summary (unaudited)

The financial summary set out below has been derived from the audited consolidated financial statements of the University for the five years ended 31 July 2019. It should be read in conjunction with the consolidated financial statements and related notes.

| (a) Summary consolidated statement of comprehensive income (£m) | 2019 | 2018 | 2017 | 2016 | 2015 |
|------------------------------------------------------------------------|------------------|----------------|----------------|----------------|----------------|
| Total income | 2,192.0 | 1,964.8 | 1,869.9 | 1,799.6 | 1,721.6 |
| Total expenditure | 2,307.5 | 1,911.1 | 1,806.5 | 1,733.8 | 1,682.7 |
| Surplus / (deficit) before other gains and losses | (115.5) | 53.7 | 63.4 | 65.8 | 38.9 |
| Share of operating surplus in joint ventures | 1.5 | – | – | – | – |
| Gain on investments | 235.1 | 219.0 | 407.1 | 221.8 | 329.2 |
| Surplus before tax | 121.1 | 272.7 | 470.5 | 287.6 | 368.1 |
| Surplus for the year | 117.3 | 269.6 | 466.4 | 284.6 | 355.9 |
| Actuarial gain / (loss) | (208.2) | 122.5 | 26.3 | (182.2) | (13.2) |
| Other comprehensive income / (expense) for the year | – | (1.3) | (0.4) | 9.8 | (3.6) |
| Total comprehensive income / (expense) for the year | (90.9) | 390.8 | 492.3 | 112.2 | 339.1 |
| Represented by: | | | | | |
| Endowment comprehensive income for the year | 115.6 | 127.8 | 208.7 | 105.2 | 151.7 |
| Restricted comprehensive income for the year | 121.5 | 74.3 | 49.5 | 65.8 | 86.4 |
| Unrestricted comprehensive income / (expense) for the year | (328.0) | 188.7 | 234.1 | (58.8) | 101.0 |
| | (90.9) | 390.8 | 492.3 | 112.2 | 339.1 |
| Adjusted consolidated statement of comprehensive income | | | | | |
| Surplus for the year | 117.3 | 269.6 | 466.4 | 284.6 | 355.9 |
| Less: Gain on investments | (235.1) | (219.0) | (407.1) | (221.8) | (329.2) |
| Less: CPI-Linked Bond fair value adjustment | 51.5 | – | – | – | – |
| Less: USS pension deficit recovery reflected in staff costs | 230.7 | 4.5 | (1.5) | 17.6 | 62.3 |
| Less: Harding endowment | (41.3) | – | – | – | – |
| Less: Capital grants and donations | (107.0) | (75.6) | (80.5) | (105.4) | (92.6) |
| Adjusted operating surplus / (deficit) for the year | 16.1 | (20.5) | (22.7) | (25.0) | (3.6) |
| (b) Summary consolidated balance sheets (£m) | 2019 | 2018 | 2017 | 2016 | 2015 |
| Non-current assets | 6,528.1 | 6,106.7 | 5,805.3 | 5,293.9 | 4,902.0 |
| Current assets | 1,770.4 | 1,833.8 | 1,055.6 | 990.8 | 982.7 |
| Total assets | 8,298.5 | 7,940.5 | 6,860.9 | 6,284.7 | 5,884.7 |
| Current liabilities | (1,038.7) | (1,096.8) | (896.0) | (792.3) | (712.7) |
| Non-current liabilities | (2,115.0) | (1,606.3) | (1,117.8) | (1,137.6) | (929.4) |
| Net assets | 5,144.8 | 5,237.4 | 4,847.1 | 4,354.8 | 4,242.6 |
| Income and expenditure reserve - endowment | 1,971.3 | 1,855.7 | 1,727.9 | 1,519.2 | 1,414.0 |
| Income and expenditure reserve - restricted | 128.3 | 97.9 | 85.5 | 79.2 | 81.9 |
| Income and expenditure reserve - unrestricted | 3,045.2 | 3,283.8 | 3,033.7 | 2,756.4 | 2,746.7 |
| Total reserves | 5,144.8 | 5,237.4 | 4,847.1 | 4,354.8 | 4,242.6 |
| (c) Summary consolidated statement of cash flows (£m) | 2019 | 2018 | 2017 | 2016 | 2015 |
| Net cash inflow from operating activities | 124.4 | 78.7 | 77.6 | 51.4 | 20.3 |
| Net cash outflow from investing activities | (294.3) | (103.3) | (105.2) | (101.5) | (13.2) |
| Net cash inflow / (outflow) from financing activities | 47.1 | 598.6 | 14.6 | 14.8 | (4.8) |
| Increase / (reduction) in cash and cash equivalents in the year | (122.8) | 574.0 | (13.0) | (35.3) | 2.3 |
| Cash and cash equivalents at end of the year | 732.5 | 855.3 | 281.3 | 294.3 | 329.6 |

Note: Year ended 31 July 2015 has been restated to Financial Reporting Standard 102



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