

CAMBRIDGE UNIVERSITY REPORTER

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REPORTS AND FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 JULY 2022

ANNUAL REMUNERATION REPORT, 2021–22

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UNIVERSITY OF
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NOTICES

Annual Reports and Financial Statements for the year ended 31 July 2022

The Council approved the Annual Reports and Financial Statements (p. 487) as received on 28 November 2022. They were signed by the Acting Vice-Chancellor, an external member of the Council and the Director of Finance and submitted to the Office for Students on 8 December 2022.

The Reports and Financial Statements for the year ended 31 July 2022 will be included in the items listed for Discussion on Tuesday, 2 May 2023.

Annual remuneration report, 2021–22

The Council is required to publish each year a remuneration report setting out the principles behind the University's approach to the remuneration of its staff, in line with the guidance provided by the Committee of University Chairs and the Office for Students. The remuneration report for 2021–22 was approved by the Remuneration Committee on 8 November 2022 and the Council on 28 November 2022 and is published on p. 570 below for the information of the University. The report also provides remuneration data which should be read in parallel with that provided in the Notes to the Accounts section of the Financial Statements (p. 487 at p. 527).

ANNUAL REPORTS AND FINANCIAL STATEMENTS: BRIEF OVERVIEW

Brief overview for the year ended 31 July 2022

Vice-Chancellor's statement

It is an honour to take on the role of Acting Vice-Chancellor at a very exciting time for the University of Cambridge.

Despite recent challenges and uncertainties, the University has shown its ability not only to react to external changes and pressures, but to address some of today's most pressing issues in advance. Looking back on the past twelve months, I am especially proud of the recognition we have received for our world-leading research, for our contribution to COP26, and for the way in which we have supported our fellow students and academics from Ukraine. We are living up to our mission by contributing to society through education, learning and research.

My sincere thanks to all our students, staff, alumni and friends, who continue to show such commitment to our University's important work.

Dr Anthony Freeling
Acting Vice-Chancellor

About the University

The mission of the University of Cambridge is to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.

Cambridge is one of the world's leading research universities addressing some of the greatest challenges facing us, from climate change and the genomics of human viruses to food security and anti-microbial resistance.

The University attracts some of the most able students to undergraduate and postgraduate programmes renowned for intense learning in small groups. Its graduates are highly sought after for leading roles in industry, academia and government.

Cambridge was ranked second in the 2023 QS World Rankings. The University's global reputation was recognised in May by the results of the Research Excellence Framework (REF), a major UK exercise that assesses the quality of research at our universities, with the Times Higher Education rankings showing Cambridge to be one of the leading Universities that covers the broad range of disciplines from STEM to the arts, humanities and social sciences.

Cambridge is also one of the world's leading university innovation hubs, supporting a high tech local economy in the East of England. The University acts as a catalyst providing ideas for commercialisation, early stage funding, venture capital, incubation for start-up companies and a well-educated workforce to power them as they scale up.

Cambridge University Press & Assessment publishes more than 400 academic journals and thousands of books for research and higher education, as well as providing assessment for more than 8 million learners in more than 170 countries every year.

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 for the year are included as a separate pdf document at <https://www.admin.cam.ac.uk/reporter/2022-23/weekly/6694/brief-overview2022.pdf>.

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 this Report and Financial Statements, fully meet the public benefit requirements of advancement of education, research and dissemination of knowledge.

Environmental sustainability

The University is committed to making a positive impact through outstanding environmental sustainability performance. The pursuit of this commitment has provided a vehicle for increased collaboration across the wider University over the past year.

In July 2019, the University adopted a Science-Based Target (SBT) for emissions reduction, committing to reducing its energy related (Scope 1 and 2) emissions for its operational estate¹ to zero by 2048 and, if possible, to achieve a stretch target of 2038. In October 2021, Cambridge University Press & Assessment (CUP&A) also adopted the 2048 commitment, with a 72 per cent reduction targeted by 2030. Work has also started to measure Scope 3² carbon emissions across the wider University on a consistent basis, with a view to coordinated target setting and reporting against these emissions in future.

A broad programme of work, involving numerous stakeholders from across the University, is now underway to reduce the University's carbon emissions in line with its commitments. In 2020–21, this included bodies of work aimed at reducing the University's use of gas and generating and procuring more of its electricity from zero carbon sources. High impact examples of the University's commitment to reduce emissions from its operational estate have this year included the Entopia building, a world-leading example of an ultra-sustainable retrofit, and the opening of the West Hub building, which has been designed to BREEAM Excellent standard.

Also in 2021–22, the University Council adopted guidelines for staff and students on sustainable business travel, following stakeholder consultation and engagement across the University community. The purpose of the guidelines is to encourage and support a reduction in non-essential University business travel, in particular air travel, and its associated carbon impacts. Alongside this, the Carbon Offsetting Working Group (COWG), drawing on the University's own academic knowledge and external expertise, have been developing recommendations on how the University can offset its unavoidable emissions from business travel in a robust and credible way.

Staff and students have continued to play a vital role in supporting delivery of the University's environmental sustainability commitments, through a wide range of engagement initiatives including Green Impact; LEAF, a bespoke assessment framework for staff and students working in labs; Sustainability Champions; the Living Lab; and for the first time this year by helping to monitor and record local biodiversity the University and College iRecord activity. Our academic community has also played a key role, for example through the work of the COWG; the Ecological Advisory Panel, who continue to drive forward delivery of the University's Biodiversity Action Plan; and the pioneering work of Cambridge Zero.

Shown below are total Scope 1 and 2 emissions from the University's operational estate in 2021–22 and previous years. The University reports its environmental sustainability performance in full in an annual report. The 2021–22 report will be available in early 2023 and selected environmental performance measures for the year ended 31 July 2022 for the operational estate will be subject to independent limited assurance.

Total Scope 1 and 2 emissions for the University's operational estate (tCO₂e per year)³:†

	2021–22	2020–21	2019–20	2018–19	2017–18	2016–17	2015–16*
Total Scope 1 and 2 Location-based carbon emissions (energy and fuel)	49,124	55,106	53,931	57,872	62,014	69,734	74,828
Total Scope 1 and 2 Market-based carbon emissions (energy and fuel use)	24,766	27,695 ***	24,136 ***	**	**	**	**
Total nuclear waste generated (tonnes/year)****	0.783	0.732	0.769	**	**	**	**

† For details on how the emissions figures were calculated see the Methodology Statement available at <https://www.environment.admin.cam.ac.uk/Annual-Report>.

* Baseline year for SBT for the operational estate.

** Reporting of market-based carbon emissions started from 2019–20, after securing the first Power Purchase Agreement (PPA) in 2019.

*** Market-based emissions figures for 2019–20 and 2020–21 have changed from those reported last year, following an amendment to the calculation methodology, in line with best practice defined under the Greenhouse Gas Protocol.

**** The University's long-term strategy for its procured electricity is to incrementally increase the proportion that is being sourced from renewable sources via PPAs. As an interim step towards zero carbon energy sources, the proportion of the University's procured electricity that is currently not sourced via a PPA is generated through nuclear power. In the interests of transparency, the amount of nuclear waste generated as a result of the University's use of nuclear power (since market-based emissions reporting started in 2019–20) has been calculated. Conversion factors from <https://www.edfenergy.com/fuel-mix>.

Cambridge University Press & Assessment is a signatory to the UN Global Compact, the world's largest corporate sustainability programme that helps organisations align strategies and operations with Ten Principles on human rights, labour, the environment, and anti-corruption. Following the merger of Cambridge University Press and Cambridge Assessment in August 2021, CUP&A published its first Communication on Progress as a joint organisation on 27 April 2022. CUP&A's total UK Scope 1 and 2 carbon emissions for the year was 3,237 tCO₂e, a reduction of 7% from the previous year.

¹ The operational estate comprises those buildings that are used to support the University's teaching and research, and the associated administrative functions.

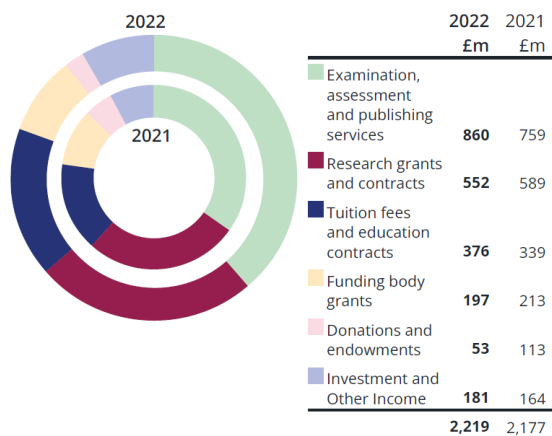
² Scope 3 emissions are those that arise as a consequence of the University's operations and activities, but either upstream or downstream from the University itself – including for example supply chain emissions and emissions from business travel.

Financial highlights

The University’s audited financial statements for the year ended 31 July 2022 are included in the next Section of this Reporter issue, pp. 512 to 567. The following analyses, extracted from those financial statements and the accompanying financial review, summarise the University’s sources of income, surplus for the year and the factors affecting net assets.

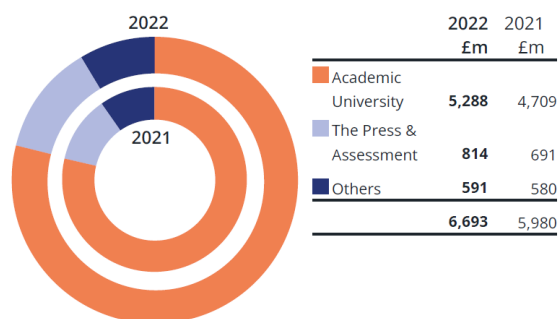
Group income

The Group’s income has increased by £42m (up 2%) compared to the prior year, largely due to a continued strong performance from Cambridge University Press & Assessment, where revenues are up 13% compared to 2020–21.



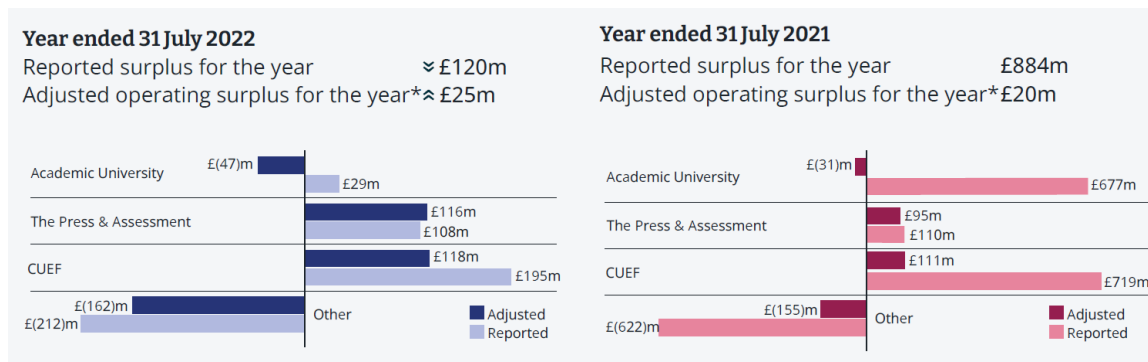
Group net assets

The Group’s net assets totalled £6,693m as at 31 July 2022 (2021: £5,980m). The increase in net assets largely reflects actuarial gains of £596m on the Group’s defined benefit pension schemes, combined with an increase in the fair value of investments. Cash and cash equivalents decreased from £644m to £553m in the year, primarily as a result of operating cash inflows of £118m, less a £250m investment in the new Cambridge Multi-Asset Fund (‘CMAF’). The Group continues to closely monitor liquidity over all timescales and under various stress-test scenarios.



Group surplus for the year

The Group generated a surplus for the year of £120m which included a significant, largely unrealised, gain on investments. After adjusting for this, fair value adjustment for the CPI index-linked Bond, change in USS pension deficit recovery provision, donations, endowments and capital grant income and the CUEF income on a distribution basis, the underlying ‘adjusted operating surplus’ was £25m. The University considers this to be the best measure of underlying recurrent operating performance. The surplus position is similar to the previous year. Whilst the consolidated Group has again achieved a modest adjusted operating surplus, the Academic University outcome is more finely balanced and has yet to achieve a sustainable surplus.



* See Appendix 1
 ** Stated before contributions and transfers made to the University
 *** Other includes Trusts, subsidiaries and the elimination adjustments.

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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 (the 'Academic University') and its subsidiary companies;
- Cambridge University Press & Assessment ('the Press & Assessment') and its subsidiary companies, joint ventures and associates; and
- the 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; and
- the Gates Cambridge Trust and the Cambridge Commonwealth, European and International Trust (the 'Associated Trusts'), and other subsidiaries of the Group not included in other segments that undertake activities which, for legal or commercial reasons, are more appropriately carried out by limited companies.

On 20 October 2020, the Vice-Chancellor of the University of Cambridge announced that Cambridge Assessment and Cambridge University Press would combine into a single organisation. On 1 August 2021, both organisations combined to form a new merged organisation named Cambridge University Press & Assessment.

Further detailed information about the finances and operations of the Press & Assessment is given in the published annual reports of that entity. The Press & Assessment is a constituent part of the corporation known as the Chancellor, Masters and Scholars of the University of Cambridge. The Press & Assessment's primary work is the conduct and administration of examinations in schools and for persons who are not members of the University, and operation of 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.

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 2021–22 academic year (*Reporter*, 6679, 2022–23, p. 186 and p. 197). References to the University reflect the teaching and research activities of the University (excluding subsidiary companies and Associated Trusts), together with the Press & Assessment (but excluding their subsidiary companies, joint ventures and associates). References to the Group reflect the teaching and research activities of the University together with the Press & Assessment, including all subsidiary companies, Associated Trusts, joint ventures and associates (see Note 37).

The financial position of the core teaching and research activities of the Academic University may be seen more clearly in the Financial Management Information published in the *Cambridge University Reporter*. The Group considers the best measure of underlying recurrent operating performance to be the adjusted operating surplus / (deficit) for the year shown in Appendix 1.

The Group has redefined this measure during the year to Reported Surplus less gains or losses on revaluation of investments, fair value adjustment for the CPI-linked bond, change in USS deficit recovery provision, donations, endowments and capital grant income, and adding the CUEF income on a distribution basis. This adjusted measure provides a more reliable and consistent measure of the Group's performance.

Financial results for the year

The results for the Group for the year ended 31 July 2022 are summarised in Table 1.

Table 1

<i>Summary statement of comprehensive income</i>	2021–22 £m	2020–21 £m	Change %
Income	2,219	2,177	2%
Expenditure *	(2,301)	(2,073)	11%
(Deficit) / Surplus before other gains and losses and share of surplus of joint ventures and associates	(82)	104	
Share of surplus of joint ventures and associates	–	1	
Gain / (loss) on disposal of fixed assets	8	(1)	
Gain on investments	199	782	
Taxation	(5)	(2)	
Surplus for the year	120	884	(86%)
Actuarial gain	596	30	
Gain / (Loss) on foreign currency translation	1	(3)	
Total comprehensive income for the year	717	911	(21%)

<i>Adjusted operating surplus for the year</i>	2021–22 £m	2020–21 £m	
Surplus for the year (as above)	120	884	
Less: Gain on investments	(199)	(782)	
Less: CPI-linked bond fair value adjustment	(182)	17	
Add: USS pension deficit recovery reflected in staff costs	261	6	
Less: Donation, endowment and capital grant income	(96)	(221)	
Add: CUEF income (distribution basis)	121	116	
Adjusted operating surplus for the year **	25	20	

<i>Reconciliation to Academic University adjusted operating deficit</i>	2021–22 £m	2020–21 £m	
Adjusted operating surplus for the year (as above)	25	20	
Less: the Press & Assessment adjusted operating surplus	(116)	(95)	
Less: Trusts and other adjusted operating deficit	14	5	
Less: CUEF operating deficit	3	5	
Add back: the Press & Assessment contribution to Academic University	30	28	
Other consolidation adjustments	(3)	6	
Academic University adjusted operating deficit (Table 2)	(47)	(31)	

* Includes the non-cash charge relating to the USS deficit recovery provision of £260.8m (2020–21: £6.1m) related to the 2020 scheme valuation, and the positive impact of an unrealised non-cash credit of £182.2m (2020–21: charge of £17.0m) related to the fair value adjustment to the CPI-linked bond.

** See Appendix 1 to the Accounts for further details.

Following the impact of the Covid-19 pandemic over the previous two years, 2021–22 has seen a return to a more usual operating environment, albeit that the path of recovery has varied across the Group's large number of different activities. Overall revenues have increased slightly during the year, substantially driven by continued recovery in the Press & Assessment activity, offset by lower recognition of research income following the reduction in grants awarded during the pandemic. Costs have increased more significantly, but broadly in line with the Group's budget, again related primarily to the Press & Assessment activity and also as a result of increased estates, travel and subsistence and services expenditures in the Academic University, and in the second half of the year in particular, increasing general inflation in the cost of goods and services.

Total income is higher year on year with an increase of 2% compared to 2020–21, driven by the higher trading volumes of the Press & Assessment and increased tuition fees and other income, offset by lower funding body grants, research grants and contracts and donations and endowment income.

The Group reported a surplus for the year of £120.2m (2020–21: £883.5m). The surplus is £763.3m lower than last year primarily reflecting the following:

- Lower gains on investments (mostly unrealised) of £199.0m (2020–21: £781.6m). After a very strong CUEF performance in 2020–21 as global markets recovered from the impact of Covid-19, 2021–22 saw continued good relative performance of the CUEF in a challenging investment environment;
- Significantly lower capital grants and donations income of £45.1m (2020–21: £109.8m), and new endowments of £4.7m (2020–21: £47.9m);
- A significant non-cash charge of £260.8m (2020–21: £6.1m) to the USS scheme deficit recovery provision, based on the 2020 scheme valuation;
- Offset (to some extent) by the fair value adjustment (credited to finance costs) to the CPI-linked bond amounting to a credit of £182.2m (2020–21: charge of £17.0m).
- The Group total comprehensive income for the year is £717.4m (2020–21: £910.7m) which benefited from the surplus of £120.2m and £596.0m of actuarial gains (2020–21: £30.0m), derived from the Group's defined benefit pension schemes, primarily reflecting an increase in market interest rates.

Unrealised gains/losses on investments, fair value adjustment of the CPI-linked bond, actuarial gains and losses on pension schemes and donations, endowments and capital grant income will continue to fluctuate from year to year over time. These effects are demonstrated in the historical trend data (see Appendix 1). 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 gains and losses on investments, the CPI-linked bond fair value adjustment, the change in USS pension deficit recovery provision, donations, endowments and capital grant income, and the CUEF income on a distribution basis. The Group had a reduced adjusted operating surplus this year, largely as a result of the changes in income and expenditure described later in this review. The Academic University's operating cash flows are supported by the element of CUEF distributions funded from long-term capital growth, subsidising the deficit on core teaching and research activities. This adjusted measure of operating surplus provides a reliable and consistent measure of the Group's performance.

Investment by the Group in its capital infrastructure continued during 2021–22 with £164.9m (2020–21: £247.0m) invested in fixed assets, software and investment property over the period. The overall investment programme activity remains largely on track during the year.

The underlying 2021–22 financial operating performance was satisfactory, albeit that cost pressures began to be felt more significantly in the latter part of the year and will require careful management in the higher inflation environment in which the Group now operates. Management regard the most representative measure of underlying performance to be the adjusted operating surplus for the year of £25.4m (2020–21: £19.8m) reflected above and in Appendix 1 to the Accounts.

Segmental analysis

The consolidated position comprises four main segments: (i) core academic activities of the Academic University; (ii) the assessment and publishing activities carried out by the Press & Assessment; (iii) 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; and (iv) the combination of smaller entities including the associated trusts and subsidiary companies not included in the other segments. Within the Group, there are a number of intra-group transactions, principally the financial and other support from the Press & Assessment and the CUEF distribution from capital growth. Table 2 (p. 490) gives segmental information, which is considered in further detail in Note 19 to the Accounts.

Income

The Group's income increased by £42m (up 2%) from £2,176.9m to £2,218.8m. The Group has diversified sources of revenue providing operational stability with a compound growth of 5.3% over a rolling ten-year period. The increase this year has come from the continued growth in examination, assessment and publishing services, with an increase of £100.8m (13%) over 2020–21, reflecting post-pandemic recovery. Tuition fees and education contracts income has increased during the year, whilst funding body grants, research grants and contracts and donations and endowment income have decreased.

- Revenues from examination, assessment and publishing services (from the Press & Assessment) represent the largest source of Group income, and in aggregate totalled £860.1m (2020–21: £759.3m) which amounts to 39% of total revenues for the year.
- Sponsors of research projects represent the second largest source of income for the Group. Research grants and contracts decreased this year to £551.8m (2020–21: £588.6m). The decrease has mainly come from lower funding from Research Councils which decreased by 15% to £169.8m.
- Tuition fees and education contracts totalled £376.2m (2020–21: £339.5m), up 11%, principally due to increases in non-regulated fees.
- Funding body grants from the OfS and Research England decreased by 7% to £197.3m (2020–21: £212.9m), the majority of which related to recurrent research-related grants.
- Other income of £167.0m (2020–21: £161.8m) increased this year, with higher revenues from residences, catering, conferences, and a recovery in revenues from the Group's various activities related to academic departments, offset by lower income from provision of Covid-19 testing facilities and reduced government grant income following the cessation of the Coronavirus Job Retention Scheme.
- Donations and endowments received were £52.8m, (2020–21: £112.6m), with the reduction due to a lower level of donations and endowments for capital projects, as large capital donations in recent years, such as that for the Cavendish III Laboratories, are lower in the current year.
- Investment income, on a reported basis, increased to £13.6m from £2.2m in 2020–21 primarily as a result of increased income from other investments, as interest rates have risen.

Table 2

	2021–22					
	Academic University 2022 £m	The Press & Assessment 2022 £m	CUEF 2022 £m	Trusts and other 2022 £m	Elimination and adjustments [†] 2022 £m	Total 2022 £m
Income*	1,424	873	–	177	(255)	2,219
Expenditure	(1,455)	(767)	(3)	(183)	107	(2,301)
Surplus / (deficit) before other gains and losses and share of surplus of joint ventures and associates	(31)	106	(3)	(6)	(148)	(82)
Gain on disposal of fixed assets	8	–	–	–	–	8
Gain on investments (including CUEF gain)	52	7	198	19	(77)	199
Taxation	–	(5)	–	–	–	(5)
Surplus for the year[#]	29	108	195	13	(225)	120
Less: (Gain) / loss on investments	(52)	(7)	(198)	(19)	77	(199)
Less: CPI-linked bond fair value adjustment	(182)	–	–	–	–	(182)
Add: USS pension deficit recovery provision	241	15	–	5	–	261
Less: Donation, endowment and capital grant income	(83)	–	–	(13)	–	(96)
Add: CUEF income (distribution basis)	–	–	121	–	–	121
Adjusted operating (deficit) / surplus for the year[#]	(47)	116	118	(14)	(148)	25

	2020–21					
	Academic University 2021 £m	The Press & Assessment 2021 £m	CUEF 2021 £m	Trusts and other 2021 £m	Elimination and adjustments [†] 2021 £m	Total 2021 £m
Income *	1,495	780	–	239	(337)	2,177
Expenditure	(1,342)	(684)	(5)	(229)	187	(2,073)
Surplus / (deficit) before other gains and losses and share of surplus of joint ventures and associates	153	96	(5)	10	(150)	104
Share of surplus of joint ventures and associates	–	1	–	–	–	1
Loss on disposal of fixed assets	–	(1)	–	–	–	(1)
Gain on investments (including CUEF gain)	524	16	724	121	(603)	782
Taxation	–	(2)	–	–	–	(2)
Surplus for the year[#]	677	110	719	131	(753)	884
Less: (Gain) / loss on investments	(524)	(16)	(724)	(121)	603	(782)
Less: CPI-linked bond fair value adjustment	17	–	–	–	–	17
Add: USS pension deficit recovery provision	5	1	–	–	–	6
Less: Donation, endowment and capital grant income	(206)	–	–	(15)	–	(221)
Add: CUEF income (distribution basis)	–	–	116	–	–	116
Adjusted operating (deficit) / surplus for the year[#]	(31)	95	111	(5)	(150)	20

* Income includes distribution from CUEF as income which is eliminated at consolidated level

Surplus for the year for the Press & Assessment is before distribution to the Academic University

† Includes elimination on consolidation of the Press & Assessment transfers, CUEF distribution from capital growth and other consolidation adjustments

Examination, assessment and publishing services

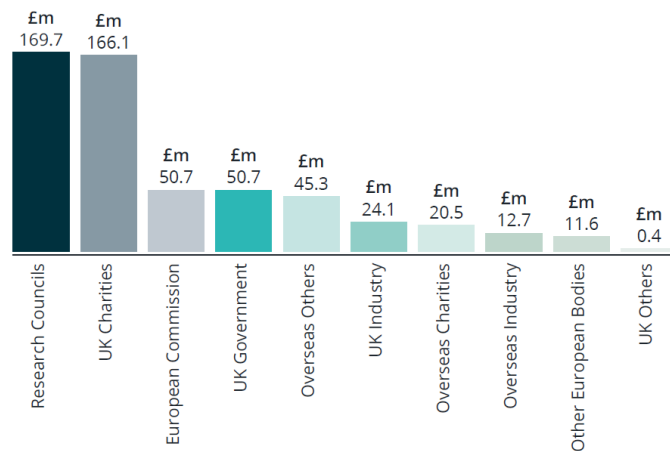
The Press & Assessment carry out examination and assessment services through its three exam boards: Cambridge Assessment English, Cambridge Assessment International Education, and Oxford Cambridge and RSA Examinations (OCR). Publishing services incorporate income from the sales of educational and scholarly books, e-books, journals, applications 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). Total examination, assessment and publishing income in the year to 31 July 2022 increased by 13% to £860.1m as noted above, representing a solid recovery from the pandemic.

Research

The Group's 2021–22 research income decreased to £551.8m from £588.6m in the previous year. Fewer grants were awarded during the Covid-19 pandemic and due to the lag in related activity this has affected income in the current year. The decrease has mainly come from lower funding from Research Councils which decreased by 15% to £169.7m. Research income from sources other than UK Research Councils was broadly comparable year on year, £382.1m. Of this, £166.1m (+3%) came from UK-based charities, £24.1m from UK industry (+8%) £50.7m from the European Commission (-3%) and £90.5m (-12%) from other sources.

The University receives recurrent funding from the UK government in the form of grants for teaching, research and other activities. In 2021–22, the University was also allocated £131.4m of Quality-Related (QR) funding, representing 7.1% of the overall grant award for England.

Analysis of research income by sponsor



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.

In aggregate over the year ended 31 July 2022, donations and endowment income totalled £52.8m (2020–21: £112.6m). Whilst the level of donations and endowments available for unrestricted purposes was slightly above the previous year, income for restricted purposes and capital projects was significantly lower. The latter category routinely shows high variability year on year. The previous three years have seen very large capital donations for building projects. The current year represents a more usual level of ongoing capital donations.

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. In 2021–22, the £2bn *Dear World, Yours Cambridge* Campaign for the University and Colleges raised £247m. The campaign concluded at the end of 2021–22, raising a total of £2.217bn in commitments. Looking at international competitors' philanthropy programmes, the University continues to develop the potential to grow donations, with enhanced alignment to academic priorities.

Investment income

Investment income is an important component of the University's funding mix generated by the Group's financial investments, in particular the CUEF and from current asset investments (deposits and money market investments). During the year, the Group invested £250m in the new Cambridge Multi-Asset Fund (CMAF), which is intended to provide greater returns than deposits and money market investments, whilst maintaining high levels of liquidity for funds intended for operational use, over the medium term. The Group has reported net investment expense of £3.6m (2020–21: £4.5m) to operate and run the CUEF. On a 'distribution basis', total investment income was £138.7m (2020–21: £122.7m).

Other investment assets generated income of £17.2m during the year (2020–21: £6.7m) mainly from current asset investments. The majority of the University and Group's current asset investments are invested in the deposit pool. This pool is managed by the Group Treasury 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.

Other income

The Group generates significant other income including property rentals, contributions from health and hospital authorities, residences, catering and conferences, other activities linked to academic departments (for example, the Cambridge Institute for Sustainability Leadership) and income from intellectual property managed primarily through Cambridge Enterprise Limited. Total other income of £167.0m (2020–21: £161.8m) has increased this year, primarily as a result of post-pandemic recovery in residences, catering and conferences, and other activities linked to academic departments, offset by a reduction in income from provision of Covid-19 testing facilities and government grant income from the Coronavirus Job Retention Scheme (CJRS) scheme.

Expenditure

The Group's total expenditure in 2021–22 of £2,301.1m (2020–21: £2,073.2m) was £227.9m (11%) higher than prior year. Excluding the non-cash impacts of significant adjustments to the USS deficit recovery provision and the fair value adjustment related to the CPI-linked bond, described on p. 489, expenditure was £2,222.5m (2020–21: £2,050.1m), an increase of £172.4m (8%) compared to the prior year.

Expenditure excluding the USS deficit recovery provision adjustment and the fair value adjustment related to the CPI-linked bond comprises staff costs (including research) of 47%; other operating expenses of 47%; depreciation of 4% and interest and other finance costs of 2%. The main changes compared to 2020–21 levels reflect the following:

- Staff costs increased by 5% to £1,044.4m. The increase is substantially due to a mix of pay increases, an Exceptional Covid-19 payment of £13.2m made to Academic University staff in July 2022, and increasing activity at the Press & Assessment.
- Other operating expenses increased by 13% to £1,039.7m, reflecting increased costs in the Academic University (primarily Estates and buildings, Travel, transport and subsistence, and Professional services) and the Press & Assessment (increases in both cost of sales and other operating costs, related to the increase in income described on p. 489).
- Depreciation has decreased from £104.4m to £100.8m.
- Interest costs excluding the non-cash fair value adjustment relating to the CPI-linked bond of £37.6m (2020–21: £38.6m) comprise mainly fixed Interest payments on bonds of £21.1m (2020–21: £21.1m) and other interest costs, primarily relating to non-cash interest on pension liabilities, of £15.9m (2020–21: £14.3m).

Cash flow and financing

During the year, the net cash inflow from operating activities after taxation of £118.0m were comparable to last year (2020–21: £119.2m). The activities of the Press & Assessment further the mission of the University in important ways and provide significant sources of funds for the Academic University. In the financial year to 31 July 2022, the Press & Assessment produced a surplus (before contribution to University) of £108.1m (£109.9m). Routinely, 30% of these surpluses are transferred to the University and used towards funding capital expenditure and academic investment, alongside donations, grants, and a continued draw on University unrestricted resources.

The net cash outflow for the Group was £227.9m for the year (2020–21: cash inflow of £447.2m), driven by net cash inflows from operating activities after taxation as noted above of £118.0m, as well as cash outflows from investment activities of £412.6m (2020–21: inflow of £405.9m) and inflow from financing activities of £66.7m (2020–21: outflow of £77.9m). The outflow from investment activities relate to CUEF activity and investments of £250m into the new Cambridge Multi Asset Fund ('CMAF'). The outflow from financing activities is primarily interest costs, with a lower level of endowment income in the year the main cause of the movement compared to 2020–21.

Net assets

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

Table 3

	Academic University 2022 £m	The Press & Assessment 2022 £m	CUEF 2022 £m	Trusts and other 2022 £m	Elimination and adjustments [†] 2022 £m	Total 2022 £m
Net assets at 31 July 2021	4,709	691	3,799	605	(3,824)	5,980
Surplus / (deficit) for the year before tax	29	112	195	13	(225)	124
Taxation	–	(4)	–	–	–	(4)
Surplus for the year (Table 2)	29	108	195	13	(225)	120
Actuarial gain	550	46	–	–	–	596
Gain / (loss) on currency translation	–	1	–	–	–	1
Dividend paid to non-controlling interest	–	(4)	–	–	–	(4)
Net transfers and other adjustments	–	(28)	7	(3)	24	–
Net assets at 31 July 2022	5,288	814	4,001	615	(4,025)	6,693

The Group's net assets totalled £6,692.9m as at 31 July 2022 (2021: £5,979.5m). Total comprehensive income of £717.4m, comprising the majority of the increase in net assets, is described on p. 489.

Fixed assets

The University has 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 operational activities continues to be insufficient to deliver significant elements of the programme. For this reason, philanthropy and other sources of capital funding, including contributions from the Press & Assessment, are critical to the future programme's success.

In the year 2021–22, fixed asset additions for the Group were £114.9m (2020–21: £198.8m), with capital expenditure on land and buildings of £86.7m (2020–21: £163.6m), and further expenditure of £28.2m (2020–21: £35.2m) on equipment. The University is now completing the extensive capital investment programme of the last few years and developing a more sustainable mid-term programme of investments in buildings, people and infrastructure.

More than 90% of the expenditure was made by the Academic University across a wide range of building projects, with significant expenditure continuing on the new Cavendish III national laboratory facilities. This project constituted 53% of the capital expenditure on Land and Buildings. The works on Cavendish III have progressed well and are substantially on time.

On the wider front, the University's estates strategy is continuing to reshape 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), providing attractive yet affordable housing solutions, primarily for postdoctoral staff.

Cambridge University Endowment Fund (CUEF)

The 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 University of 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 2022, there were thirteen College investors.

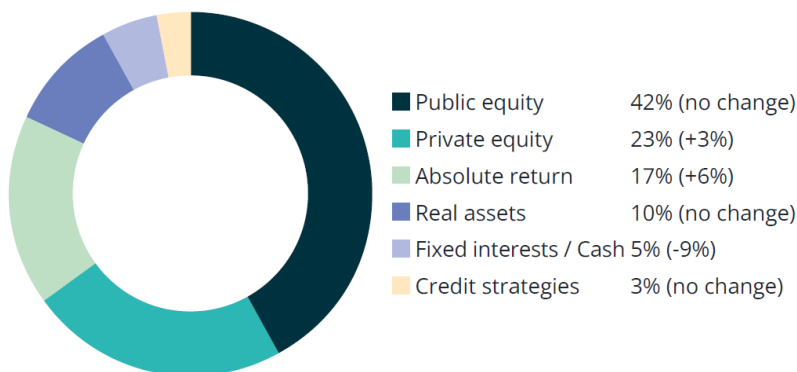
The CUEF aims to preserve and grow the value of the perpetual capital of its investors, while providing a sustainable income stream. The investment strategy of the CUEF is primarily to invest through specialist, third-party fund managers in order to access the various asset types and geographies that the Fund targets. A central tenet of the strategy is that well-directed active management allows unconstrained investors with long-term investment horizons to outperform passive investments over time, net of fees, by exploiting the short-term distortions that emerge in financial markets. This contention has been supported by Fund performance over the life of the CUEF and aims to enable CUEF to meet its long-term returns objective of UK Consumer Prices Index (CPI) +5%, net of fees, to fund distributions to investors of around 4% of the net asset value per year. The distribution policy is based on underlying capital values, ensuring the distribution is directly linked to the performance of the Fund.

At 31 July 2022, the net asset value of the CUEF was £4,000.5m (2020–21: £3,799.3m) of which £3,672.9m (2020–21: £3,536.8m) is attributable to the Group.

Asset allocation

The Fund is diversified over five broad asset classes: Public Equity, Private Equity, Absolute Return & Credit, Real Assets, and Fixed Interest / Cash. Because of this diversification, the annualised volatility of the Fund has been approximately two-thirds that of the MSCI All-Country World Equity Index ex-fossil fuels ('ACWI ex-fossil fuels') since 1 July 2020 as measured in Sterling. Direct investment by the Fund is modest and primarily focused on positions held to maintain an appropriate level of broad market exposure. These may include, from time to time, real estate, equity index positions, exchange traded funds, and instruments for the management of the Fund's foreign exchange hedge programme.

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 as at 30 June 2022 is shown below. Over the course of 2021–22, allocations to Private equity and Absolute return have increased in comparison to 2020–21 and allocation to Fixed Interest / Cash has decreased. The other categories remain broadly the same.



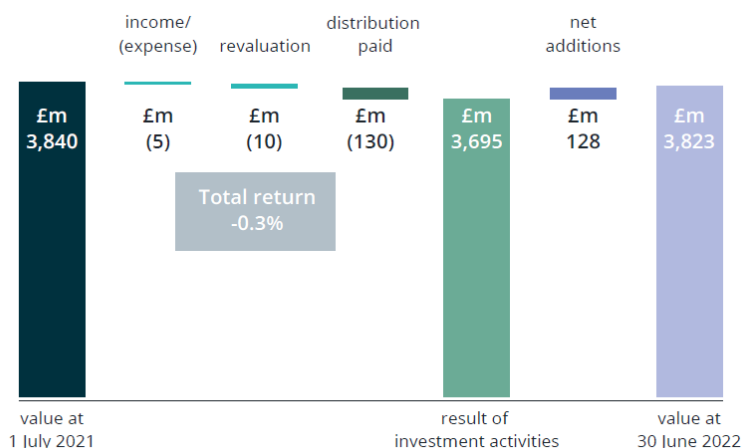
Performance

The CUEF reports its performance to 30 June 2022. For this financial year, the CUEF delivered a net return of -0.3% (2020–21: 24.1%), which, while below the Fund's absolute target of CPI+5%, was positive relative to the CUEF's passive composite benchmark return of -6.9%. This performance provided early evidence in support of UCIM's strategy of reallocating assets away from Public Equity and into Private Equity and Absolute Return & Credit, inception in January 2020.

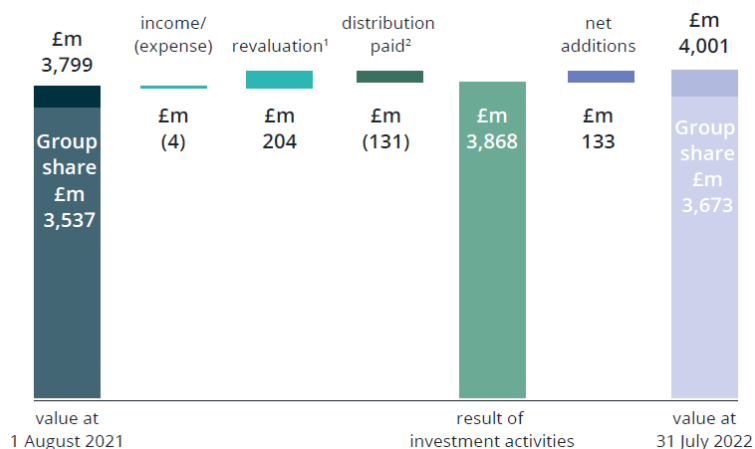
The University's Financial Statements include the CUEF values and gains on investment on a 31 July basis. The overall CUEF movements are demonstrated below.

The University's share of the CUEF represents approximately 92% of the total of £4,001m at 31 July 2022.

CUEF Fund Performance year to 30 June 2022



CUEF as Reported year to 31 July 2022



¹ Group share £189m

² Group share (£122m)

Sustainability

Alongside the strategic shift in asset allocation, the CUEF has continued to make encouraging progress towards its ambition of net zero greenhouse gas emissions by 2038, in line with the broader operational targets of the University.

The aim is to achieve this goal with a three-pronged strategy of:

- divesting from all meaningful exposure to fossil fuels by 2030, investing instead in a way that supports renewable energy development;
- engaging with the CUEF's fund managers; holding them to account on reducing carbon emissions in their portfolios; and,
- reporting regularly to stakeholders on progress against these aims.

Specific highlights in the year to 30 June 2022 include the following actions:

- sustainability has been fully integrated into the investment process, ensuring consideration of a third-party manager's approach to net zero throughout due diligence;
- two cohorts have completed the 'Net Zero by 2038' course, a curriculum specific to the CUEF's investment managers created in partnership with the Cambridge Institute for Sustainability Leadership ('CISL'); a third course is being scheduled for Q2 2023. Fund managers representing more than one-fifth of the CUEF's net asset value ('NAV') at 30 June 2022, have now attended the course;

- initial measurements of carbon emissions created by holdings within the CUEF's Public and Private Equity portfolios have been completed, informing discussions with managers about how best to move the CUEF portfolio to net zero – the results of the CUEF's measurement exercises have been and will be set out in the CUEF Annual Report.

Other investments

Some long-term investments are held outside the CUEF, amounting to £214.2m (2020–21: £181.0m). These include other securities, JVs, associates 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 increase during the year is attributable to investments in spin-out companies, which saw valuation gains of £22.1m.

During the year, the Group invested £250.0m in the new Cambridge Multi-Asset Fund (CMAF), which is intended to provide greater returns than deposits and money market investments, whilst maintaining high levels of liquidity for funds intended for operational use, over the medium term. The fund had a value of £244.7m at 31 July 2022.

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 36 to the Accounts describes how the scheme is reflected in these statements. The actuarial valuation of the overall scheme as at 31 March 2020 reflected a shortfall of £14.1bn, which is currently being mitigated though an agreed Deficit Recovery Plan paid for by all institutions as per an agreed Schedule of Contributions.

Because of the mutual nature of the USS scheme, the University is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis. As required by FRS 102, the University therefore only recognises a balance sheet liability in respect of future contributions arising from the agreed Recovery Plan, which determines how each employer within the scheme will fund the most recently calculated overall deficit. 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 (BUFDG) for the Higher Education sector. This calculation reflects the Schedule of Contributions put in place in March 2022 following the finalisation of the USS March 2020 valuation, as updated for current discount rate information. The liability for this year has increased significantly to £437.3m as the prior year liability reflected the provision based on the previous (2018) valuation (2021: £184.9m).

Subsequent to finalisation of the 2020 scheme valuation noted above, USS Trustees have continued to undertake monitoring activities, and to issue interim monitoring reports. The most recent monitoring reports have indicated an estimated net deficit of £1.6bn at 31 March 2022 and a surplus of £1.8bn at 30 June 2022. These are both significant improvements from the deficit position at 31 March 2020 and show a high degree of volatility in the position. These monitoring reports do not constitute a formal scheme valuation and are therefore not considered when calculating the deficit recovery provision disclosed in the financial statements, which has to reflect the contributions determined at the last published formal funding valuation. In the event that future formal valuations indicate an improved shortfall/surplus position compared to the 2020 scheme valuation, it would be expected that the deficit recovery provision disclosed in Note 30 would be partially or fully derecognised.

The Group has three other major schemes: the Cambridge University Assistants' Contributory Pension Scheme (CPS) for University assistant staff and two defined benefit schemes for staff of the Press & Assessment. 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 2021 has shown a significantly improved position, the Group continues to make deficit-recovery contributions to the scheme of £14.6m annually until 31 July 2023, with a planned reduction to £10.0m per annum until 31 July 2024 if the funding level remains below 95%.

The Press & Assessment defined benefit schemes are closed to new joiners and, following the triennial valuation of the two UK schemes as at 1 January 2019, are subject to a recovery plan projecting an aggregate deficit contribution of £12.6m to be funded by 30 April 2024. As at 31 July 2022, £4.6m of the deficit contribution remains to be funded.

The CPS and the Press & Assessment UK schemes (being single-employer schemes) are included in the financial statements in accordance with FRS 102. The associated net pension liability as at 31 July 2022, which represents the present value of the schemes' obligations to provide future benefits in relation to past service less the market valuation of schemes assets, has decreased to £354.8m (2020–21: £915.8m). Of this, £288.2m relates to the CPS scheme, and £66.6m to the Press & Assessment schemes. The majority of the improvement is as a result of changing financial market conditions during the year, and in particular the impact on the discount rate of changes to inflation and interest rate expectations.

Finally, there is a modest net pension asset recognised in 2021–22 of £1.1m in respect of other pension schemes, including the Press & Assessment US schemes and the Local Government Pension Scheme for staff who are employed through the University's primary school. Pensions are discussed further in Note 36 to the Accounts.

The Group's current service costs and deficit-recovery contributions (including the USS provision increase) as reflected through staff costs in the year 2021–22 were £440.3m (2020–21: £180.7m). 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 the Eddington development.

In 2018, the University secured additional external finance, 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 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%.

As at 31 July 2022, the Group had outstanding bond liabilities totalling £922.7m (2020–21: £1,104.8m).

Over time, proceeds from the bonds will provide added flexibility in the continuing support of the University's academic mission and furthering the interests of our students 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.

The Group's net cash as at 31 July 2022 was £105.0m (see Note 42). However, this includes the non-cash fair value re-measurement of the CPI-linked bond at the balance sheet date of credit £182.2m (2020–21: charge of £17.0m) this year and aggregate credit of £14.9m from inception. This will move year on year depending on volatility in the bond markets, so a more reflective position of the Group's underlying net debt position is adjusted net cash of £65.0m (2021: £302.0m), taking into account the cumulative fair value re-measurement described above, and the accretion in the value of the CPI-linked bond of £25.1m from inception. Please refer to Appendix 1 for more information.

Financial outlook

The University is confident in its long-term financial sustainability and has continued to manage its finances prudently during a year in which activity has increased as the impact of Covid-19 has reduced, and cost inflation has increasingly begun to impact the cost base.

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.

Tuition fee income is expected to grow modestly, reflecting a gradual increase in the number of postgraduate students and the higher proportion of students paying international fees after Brexit, but with overall growth levels limited by the continued freezing of regulated home fees at £9,250 per student.

Research grants and contracts income recognised is expected to remain at broadly similar levels in the short term, due to the lag in revenue recognition following the lower level of grants awarded through the Covid-19 pandemic. The increased level of award activity now being experienced should result in improvements in income recognised in the medium term. The University continues to compete for research grants and contracts in a highly competitive market. The University's longer term trajectory will depend on the level of Government funding for research and is supported by the University's very strong performance in the recent Research Excellence Framework exercise.

The combination of Cambridge University Press and Cambridge Assessment to form Cambridge University Press & Assessment was completed on 1 August 2021, and the first year post-combination has been a successful one in which the business performed at above expectations. The outlook for the combined organisation will depend, amongst other things, on the path of the continued recovery of the global economy from Covid-19, the level of international interest in learning and obtaining certification in English, and the use of international curricula in schools around the world. Covid-19 has significantly accelerated the transition to digital modes of learning and assessment and the Press & Assessment's prospects will also rely on its ability to continue to develop its digital delivery successfully as its competitors develop theirs.

Costs across the Group are expected to continue to rise in the short to medium term. Elevated levels of inflation for goods and services, and a continued recovery in activity post Covid-19, are expected to be the main drivers. The estate-wide asset condition survey undertaken in 2020–21 has also identified that a significant increase in maintenance and renewal costs will be required, to which must be added the investment needed to meet the University's zero carbon objectives. However, alternative approaches to working developed through the pandemic is creating opportunities to both improve cost efficiency and lower carbon usage. A number of specific initiatives to increase the efficiency and effectiveness in delivery of centralised services such as procurement and professional/support services are also underway.

The long-term growth objective for the CUEF remains at 5.0% + CPI. However, recent turbulence in financial markets has highlighted the potential for volatility in short to medium term investment returns.

Risks to future financial performance include economic and mobility uncertainties resulting from geo-political concerns and residual impact from the pandemic; Government actions to address the national deficit; sustained cost inflation; further turbulence in financial markets impacting future CUEF and other investment returns; and USS pension scheme costs and other potential impacts on staff costs.

Principal risks and uncertainties

The University Council, which is the University's principal executive body, 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.

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. Accountability and responsibility for risk mitigation is assigned to 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.

The Group has a risk management framework governed by the Audit Committee, for which the Council has the ultimate responsibility. The Academic University and the Press & Assessment have separate risk management policies which are relevant to those entities. The 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 the 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 risk management framework, the University's senior leadership team have identified a set of University risks. The University 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, with some changes in emphasis to reflect the heightened risk of significant downturns in the UK and/or Global financial markets and the risks of increases to or continued high levels of inflation. These risks have potential downstream impacts on a number of the other risk areas identified. The activities of the Press & Assessment are subject to the pressures of international competition. The Press & Assessment 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. 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 time to make the necessary operating adjustments. Furthermore, there are potential additional sources of revenue open to the University, albeit that the University chooses not to maximise surpluses.

Key strategic risk areas identified include:

<i>Risk area</i>	<i>Responses and actions</i>
<p>Reputational and financial impact through failure to meet OfS and other stakeholder expectations for widening student access and ensuring effective participation; student dissatisfaction in the quality of their educational experience; failure to compete with international competitors especially in providing financial support for doctoral students, particularly through failure to obtain funding for Doctoral Training Programmes (DTPs); inadequate support for student mental health and wellbeing; 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 Access and Participation Plan agreed with the OfS (2020–21 to 2024–25). – Full engagement with Colleges which are responsible for undergraduate admission decisions. – Implementation of the recommendations of the strategic review of admissions and outreach. – Continued progress in the Student Support Initiative with a particular focus on postgraduate studentships. – International Student Recruitment Strategy. – Support for innovation in methods of teaching and examination. – Implementation of the strategic review of student mental health and wellbeing. – Programme Board for Education Space responsible for improving educational space. – Strategy to support DTPs and Centres for Doctoral Training (CDTs).
<p>Significant downturn in UK and/or Global 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), levels of student applications, particularly from overseas, and reduced sources of revenue and philanthropy.</p> <p>Also further potential impact on staff through UK cost of living crisis and falling real incomes (see p. 499) and potential supply chain disruption.</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. 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.

<i>Risk area</i>	<i>Responses and actions</i>
<p>Significant increases in or continued high levels of inflation would result in an increase in the cost base of the University without matching increases in home student and government revenue streams.</p> <p>Increased cost of USS pension scheme due to higher inflation.</p>	<ul style="list-style-type: none"> – The University will continue to engage with Government directly and through the HE sector to ensure the funding is allocated reflecting inflationary pressures and increased costs of services for the sector. – The University will continue to explore other revenue streams (both in UK and internationally) with Cambridge University Press & Assessment to ensure the resources are maximised to offset increased costs. – The University will continue to invest in measures to increase the effectiveness and efficiency of its operations to optimise current and future use of resources. – The University will explore an alternative USS scheme design that shares risk more effectively between employers and members and achieves a sustainable and good value-for-money pension for members.
<p>Changes to government policy particularly resulting from increased funding pressures related to UK national deficits and debt, and economic recovery post-Covid-19, lead to further cuts in financial support and provision for education.</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 University performed strongly in the 2021 Research Excellence Framework (REF 2021) and will continue to ensure REF preparedness across the University to maximise future QR funding opportunities. – 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 maintain and further develop its strategic relationships with research funders, including charities, Research Councils and industrial funders, and respond to new funding opportunities as they arise.
<p>The Press & Assessment operates in challenging international markets where global economic conditions and competitor activity may adversely impact its financial performance, reducing the funds available for reinvestment in the University's core academic mission.</p> <p>The University has a wide 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 creation of the Press & Assessment addresses a growing desire from learners, teachers and researchers to engage with Cambridge in a joined up digital way, and reflects the demand for innovative products that combine expertise in learning and assessment. The integration has been given impetus by rapid changes in education and research, accelerated by the rapid uptake of digital education during the pandemic. Successfully competing in digital education is key to the Press & Assessment's future success. – The Press & Assessment aims to diversify its product offerings, develop new revenue streams and deepen existing capabilities overseen by a Board with significant commercial expertise. – 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>Increasingly competitive landscape for all forms of research funding.</p>	<ul style="list-style-type: none"> – The University continues to enhance the capabilities and capacity of its Research Office in support of the ongoing processes for grant application and lifecycle management, including enhancement of financial analysis. – The University continues to maintain active communications with key stakeholders (e.g. Research England, UKRI) and to diversify research income, including building on progress with philanthropy. – The University has a growing focus on industrial research collaboration with international partners, focusing on finding solutions to the major global challenges.

<i>Risk area</i>	<i>Responses and actions</i>
<p>Post-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 financial and labour market challenges due to the UK's exit from the EU are of significant concern. The University and the HE sector continue to engage with Government on all post-Brexit issues. – Decrease in European Research Council (ERC) funding could still impact the University's research income and its ability to engage leading researchers. HM Treasury has committed to guarantee existing ERC funding commitments. – Managing the expectation of research projects due to increased costs of goods and services from EU as well as shortages of skilled labour to deliver these projects. – The University continues to monitor external supply chain issues and institutions have developed contingency plans to mitigate each situation as it arises.
<p>Inability to attract and retain the best academics and adequately resource professional 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>	<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 has made an additional payment of £1,000 to all staff to acknowledge the exceptional contributions made to the University during the Covid-19 pandemic, and will continue to monitor and where appropriate address the UK cost of living crisis impacting its staff. – The University is also focusing on the provision of transport, nursery schooling and housing, with the Eddington development designed to ease pressures. – The University continues to work with the sector to ensure long-term and attractive pension schemes including the USS. – The University is offering a flexible working environment.
<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 for Health and Safety related risks. However, the devolved nature of the University and diverse nature of associated direct and indirect activities represent a challenge in ensuring full assurance coverage. The University is currently strengthening its central oversight and governance of health and safety risks, one aim of which is to provide greater visibility of, and therefore assurance around, health and safety matters across the institution.
<p>Inadequate long-term maintenance and development of the academic and non-academic estate and supporting infrastructure.</p> <p>Failure to develop and protect a fit-for-purpose IT infrastructure due to devolved organisation and associated fragmentation, customisation and local solution development.</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. – A comprehensive programme of work is continuing aimed at tackling the considerable maintenance backlog and regulatory compliance deficit. Allocated funds for maintenance have been substantially enhanced to enable this work to build momentum. – The University continues to implement a Digital Workplace programme, with regular reports to the Audit Committee. This will include the adoption of a determined direction of travel to include: consistent and secure infrastructure agnostic of location; appropriate policies and standards for staff to work securely and effectively from any location; and a path to maximise the benefits offered by digital technologies. – Establish appropriate investment levels and the prioritised allocation of resources between the University's digital vs. physical estate.

<i>Risk area</i>	<i>Responses and actions</i>
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.	<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 has developed and is implementing 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. – The University has an ongoing programme of cyber risk awareness training and engagement for all staff.

Concluding remarks

Cambridge continues to operate a high quality, high cost approach to teaching in parallel with a very significant amount of research activity. These loss-making core activities are supported by distributions from our restricted endowment reserves and direct donations.

Our ambition remains to achieve a modest, sustainable surplus for the Academic University cash flow, to maximise funds available for investment into the University's mission and provide resilience across funding sources. We have weathered the financial impacts of the pandemic better than we feared, but face exceptional cost inflation in energy and pay, outpacing revenue growth in the near term. Other significant risks include market turbulence impacting CUEF, and the Press & Assessment's continuing dependency on key products.

Our funds for one-off investments come from distributions from unrestricted endowment reserves built over time, distributions from the Press & Assessment, Government grants and philanthropy. Over the longer term, these funds will be boosted by surpluses generated from our bond funded property and investment portfolio, over and above that needed to service the debt.

We are seeking to diversify sources of income and surplus in the Press & Assessment, adopting a resilient long-term strategy at CUEF and ensuring our bond funded property and investment portfolio remains focused on commercial returns. Within the Academic University, we are targeting a sustainable annual surplus through raising revenues and utilising resources more effectively, while enhancing the academic strengths of the University and investing in our people.

We continue to focus on measures that install greater understanding of, and discipline over, the devolved University's finances, supporting the journey to a culture of enhanced financial awareness and responsibility that allows departments to generate additional revenues and save costs to help fund their local academic activities, while helping the University prioritise its central investment funds. Key to this will be the modernisation of information flows, systems and processes. While this will take time, we have started the shift in financial behaviours and targeted academic investment today. This will need to balance investment in people, IT systems and buildings as well as the commitment to decarbonise the University and galvanise increased philanthropy to match our own resources.

These are all significant challenges in an institution that is highly devolved. Nonetheless, there are huge opportunities that can be unlocked and we have the potential to achieve things that few other Universities in the world are capable of.

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). The University complies with the Voluntary Higher Education Code of Governance as revised in September 2020 by the Committee of University Chairs.

Under the University's 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 Council has a majority of internal members and is chaired by the Vice-Chancellor. Its membership includes four external members, one of whom chairs the Audit Committee (see paragraphs 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. The annual reports of the Council and the General Board are published on the University's website and are submitted to the Regent House for comment and approval.

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, the Human Resources Committee, the Remuneration Committee, and the Committee on Benefactions and External and Legal Affairs. 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. 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 (PRC) and the Human Resources Committee (HRC) are joint Committees of the Council and the General Board. PRC's responsibilities include the preparation of the University's budget. The HRC advises the Council on matters concerning equality and diversity and equal and gender pay, providing an annual equality monitoring report, and on the policy framework governing staff-related matters, including the University's policy on public disclosure (whistleblowing). The Remuneration Committee is chaired by an external member of the Council and approves market pay cases, incentive schemes and severance pay cases for senior staff as well as payments to external members of University bodies and committees. It provides advice to the Council on remuneration (including on compliance with the Higher Education Senior Staff Remuneration Code), succession planning and diversity, as appropriate, and it also reviews the University's public disclosures relating to remuneration. The Committee on Benefactions and External and Legal Affairs (CBELA) considers matters likely to have an impact on the reputation of the University, including advising the Vice-Chancellor on the acceptability of donations. The Property Board oversees the development, management and stewardship of the University's non-operational estate, including the West and North West Cambridge sites. It reports to the Council's Finance Committee. The Press and Assessment Board advises the Council on matters concerning the University Press & 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 University's 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 monitor incidences of fraud and other irregularities and their reporting to OfS as appropriate; to make an annual report to the Council and to receive reports from the OfS and other regulators. 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 via an annual declaration of interests process. In addition, interests that relate to particular agenda items are noted at the start of each meeting. 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. Council members and senior officers are encouraged to have particular regard to the seven principles of public life, supported by the University's management and governance arrangements.

Members of the Council and the charity trustees during the year ended 31 July 2022

Position	Name
<i>The Chancellor:</i>	Lord Sainsbury of Turville
<i>The Vice-Chancellor:</i>	Professor Stephen Toope*
<i>Heads of Colleges:</i>	Professor Dame Madeleine Atkins Dr Anthony Freeling** Ms Heather Hancock (from 3 May 2022) Professor Christopher Kelly Professor Pippa Rogerson
<i>Professors and Readers:</i>	Professor Anthony Davenport Professor Maria Manuel Lisboa Professor Richard Penty Professor Jason Scott-Warren
<i>Members of the Regent House:</i>	Dr Zoe Adams Dr Ruth Charles Dr Nicholas Holmes Dr Ann Kaminski Dr Philip Knox Dr Andrew Sanchez Dr Mike Sewell Dr Pieter van Houten
<i>Student members:</i>	Ms Zaynab Ahmed (from 1 July 2022) Mr Sam Carling (from 1 July 2022) Mr Zak Coleman (until 30 June 2022) Ms Amelia Jabry (from 1 July 2022) Ms Anjum Nahar (until 30 June 2022) Mr Freddie Poser (until 30 June 2022)
<i>External members:</i>	Ms Gaenor Bagley Ms Sharon Flood Professor Sir David Greenaway (until 29 August 2022) Mr Mark Lewisohn

The Chancellor, external members, student members, Professor Atkins, Dr Freeling and Ms Hancock were not employees of the University during the year. 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.

* On 30 September 2022, Professor Stephen J. Toope completed his term as the University of Cambridge's Vice-Chancellor, after five years in office.

** Dr Anthony Freeling ceased to be a member of the Council on 9 August 2022. He commenced his term as Acting Vice-Chancellor on 1 October 2022 and rejoined the Council at this date as an employee of the University.

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. A risk management framework continued to be in place for the year ended 31 July 2022 and up to the date of approval for the financial statements. The framework 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.
 - (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 Chair 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 2021–22 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.

Independent auditors' report: Report on the audit of the financial statements

Opinion

In our opinion, The Chancellor, Masters, and Scholars of the University of Cambridge ('University of Cambridge') Group financial statements and the 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 2022 and of the Group's and of the University's income and expenditure, gains and losses, changes in reserves and of 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 properly prepared in accordance with the requirements of the Office for Students' Accounts Direction (OfS 2019.41).

We have audited the financial statements, included within the Reports and Financial Statements (the 'Annual Report'), which comprise: the Consolidated and University statement of financial position as at 31 July 2022; the Consolidated and University Statement of Comprehensive Income, the Consolidated and University Statement of Changes in Reserves, and the consolidated Statement of Cash Flows for the year then ended; and the notes to the accounts, 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.

Other than those disclosed in Note 15 to the financial statements, we have provided no non-audit services to the Group or the University in the period under audit.

Our audit approach

Overview

Audit scope

- The scope of our work covered the financially significant components, including, Academic University, Cambridge University Press and Assessment, and the Cambridge University Endowment Fund. We conducted a full scope of audit of each of these components.
- These audit procedures covered 95% of the Group's income and 94% of the Group's total assets.

Key audit matters

- Rights and obligations relating to research debtors and donations income (Group and University)
- Valuation of complex pooled investment vehicle assets ('PIVs') (Group and University)
- Valuation of investment properties (Group and University)
- Valuation of pension schemes liabilities (Group and University)

Materiality

- Overall Group materiality: £21.8 million (2021: £21.2 million), based on 1% of total income.
- Overall University materiality: £19.0 million (2021: £18.4 million), based on 1% of total income capped by Group materiality allocation.
- Performance materiality: £16.4 million (2021: £15.9 million) (Group) and £14.3 million (2021: £13.8 million) (University)

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.

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.

Rights and obligations relating to research debtors and donations income is a new key audit matter this year. Otherwise, the key audit matters below are consistent with last year.

Key audit matter

How our audit addressed the key audit matter

Rights and obligations relating to research debtors and donations income

Refer to Notes 3(e) (Statement of significant accounting policies – Recognition of income), 4(a)(i) (Critical judgements in applying the Group's accounting policies – Revenue recognition), Note 7 (Research grants and contracts), and Note 9 (Donation and endowments).

The Group's research grants and contracts constitute £551.8m (2021: £540.9m) of total income.

Research grant income is typically recognised when the terms of the grant or contract are met, primarily as relevant expenditure is incurred. Often there will be timing differences between when cash is received and when recognition criteria are met, which requires income to be accrued or deferred, resulting in a risk of inappropriate revenue recognition and potential clawback at year-end. The risk of clawback after payment is low as the funder would have reviewed the invoice/claim from the University (and any potential reporting requirements) and approved payment on this basis. Therefore the significant risk specifically lies in the rights and obligations of the unbilled and billed but unpaid portions of grant income recognised and thus the recoverability of the research debtor and accrued income at year end.

Group and University

We have performed procedures over the rights and obligations to research income that is unpaid at year-end and tested the recoverability of these balances through our testing of both the billed and unbilled research income debtors (accrued income).

We have performed testing over samples of billed and unbilled research debtors. Where available we have agreed balances to subsequent cash receipts. If balances remain unpaid after year end we have tested and challenged whether the expenses claimed are allowable based on grant agreements, where appropriate we have analysed the nature of expenditure incurred in the year, assessed the ability of the funders to pay, reviewed audit reports for sponsors to identify any issues on the claim, and considered if debtors include claims for costs in excess of the amount agreed with funders. We have no matters to report.

*Key audit matter***Valuation of complex PIV's**

Refer to Note 23 (Non-current investments – other investments), Note 26 (current asset investments) and Note 12 (Investment income) and Note 36 (Pension schemes) where the pension assets are detailed.

CUEF

As explained in Note 12, 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. The total CUEF fund value is £4,000.5m (2021: £3,799.3m) of which the University share is £3,672.9m (2021: £3,536.8m) and are recorded as part of non-current asset investments – other investments and comprises 92% (2021: 93%) of the balance. The remainder of the CUEF's investments are recorded within current assets as CUEF units held on behalf of other entities. The valuation of the CUEF units, used by the various components of the Group in determining their investment valuations, is key.

Approximately 9% of the investments held by the CUEF are directly held quoted securities or cash valued using readily available market data and are therefore relatively straightforward to value. Within CUEF, a large proportion, approximately 79% of investments are in pooled investment funds, where valuations are provided by the investment manager on a monthly or quarterly basis, rather than directly from market data and the valuation of the underlying asset classes can, for some of these funds, be more subjective. For the quarterly valued pooled investment vehicles, approximately 79.0% there is a significant level of judgement within the roll-forward performed by management from 30 June valuations (for funds valued only quarterly) to 31 July. This exercise has been performed using movements in relevant indices, currency and cash flow movements, to estimate the impact. Indices have been selected based on the nature of the fund, but are considered a proxy, given the complex nature of the funds.

The overall movement in valuation from June to July valuation was £180m. Of this £75.3m related to the roll forward exercise performed by management.

Pension scheme assets

The pension asset for CPS totals £815m (2021: £815m), of which £163.9m are complex assets. This equates to roughly 20% of the assets being more complex. These more complex assets are PIVs, which, per our assessment, have been classified as more complex in nature.

We focused on these investments given the significance of the balances, the range and diversity of sources of valuations, and recognising that investment valuations by their nature are subjective.

*Group and University**How our audit addressed the key audit matter*

For materially all PIVs, held within both the pension scheme and CUEF, we have obtained independent confirmations from fund managers. For PIVs that are classified as straightforward to price (primarily with level 1/2 investments), we obtained investment manager confirmations at the year end date.

For those funds which are classified as more complex (level 3 in Note 41), additional procedures were undertaken to assess the reliability of the valuation. This included the following procedures where we assessed information which either corroborates or contradicts the confirmed value provided by the investment manager:

- Obtaining and reviewing control reports and bridging letters (where available).
- Obtaining copies of the most recently audited financial statements of the fund and comparing the unaudited valuation statement received from the fund as at the fund's year end to the audited financial statements to assess whether there are material changes to the valuation as a result of the fund's audit.
- Obtaining and reviewing a recent transaction listing to assess the transactional price when compared to the year end price.
- Performing an internet search of the investments to identify contradictory information to the valuation.

We have no matters to report in respect of this exercise.

In relation to the CUEF roll forward for quarterly valued PIVs indices were applied to estimate the values at 31 July we performed additional procedures. This included:

- Sample testing the suitability of the indices by reference to the underlying assets in the fund's audited financial statements.
- We have tested on a sample basis, the roll forward calculation including agreeing any known capital movements to independently obtained Investment Manager confirmation statements and / or agreeing to bank statements and agreeing currency movements.
- Recalculating the application of the above elements.

Differences that arose were investigated and determined to be immaterial.

Overall we have concluded that the rollforward approach applied to the quarterly priced PIVs provides a materially reasonable estimate of the valuation at 31 July.

*Key audit matter***Valuation of investment properties**

Refer to Note 23(b) (Non-current investments – Investment Property).

The Group's investment property comprises the investment properties in the Academic University, made up of the North West Cambridge ('NWC') development of £346.4m (2021: £368.4m), and a range of other residential and non-residential properties of £215.8m (2021: £221.5m). The Group also holds investment properties within the CUEF, £80.8m (2021: £255.2m) and the Northdown Limited Partnership, £115.4m (2021: nil).

Materially, all of the properties are valued by independent external valuers.

There are a number of judgemental assumptions applied across the different components including: discount rate, rental growth (which for key worker housing is linked to assumed salary growth, where appropriate), operating costs, yields, and expected sales prices for those units for sale.

A valuation of this nature has a material risk of fraud and 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. Although the use of independent external valuers significantly mitigates the risk of inappropriate assumptions / methodology being used, the magnitude of the balance means that small changes in assumptions could lead to potentially material variances.

Group and University

How our audit addressed the key audit matter

We have tested a sample of the valuations performed by the University's external valuers including the more significant North West Cambridge ('NWC') properties owned directly by the University, the CUEF and its related property vehicle interests as well as those owned by Northdown. We have performed audit procedures over the inputs to the valuations, as well as challenging the methodology and key assumptions used by the valuers where appropriate. Although there are certain judgements that have been taken in relation to valuation approaches we have not noted any bias in the estimates / judgements.

Some key judgements are noted as being:

- Committed future plans for development of Phase 2 and Phase 3 of NWC currently valued at £67.1m. This reduces the value of investment properties in the NWC portfolio. We consider the estimate reasonable based on the evidence obtained.
- The largest single contributor to the NWC development is the 'key worker housing' which equates to 40% of the total value. The assumptions used by the valuer in determining the value of these properties remain consistent with last year with rental growth rate applied increasing from 2.5% to 3% which is in line with the current agreement that allows the University to increase rent up to 3% in future years. We agree with management's change in assumption.

For the properties in the NWC portfolio, we reviewed a sample of individual components of the development, agreeing estimates back to supporting evidence (including to sales contracts already in place, third party valuations, evidence in support of current rental income and the assumed salary growth, which we assessed for consistency with the assumptions made elsewhere in the financial statements and to detailed plans and related planning approvals). Our internal valuation experts assisted us with our assessment of the assumptions that feed into the valuation (including discount rates, expected rental yields and sales proceeds), as well as with a review of the valuation methods, and the appropriateness of the comparators and benchmarks used by management's external valuation experts. We concluded that they all sit within external market ranges, where available, and are consistent with underlying support and in line with our own expectations.

In relation to the other investment properties we tested a sample of properties, in particular:

- we agreed the estimates back to supporting documentation (including lease agreements); and
- we used our internal valuation experts to assist us in assessing the valuation methods and the appropriateness of the assumptions used. We concluded that they all sit within external market ranges, where available, are consistent with underlying support and in line with our own expectations.

Based on the procedures performed, we found the methodologies used in preparing the valuations were appropriate and the key assumptions were supportable in light of available evidence.

*Key audit matter***Valuation of pension schemes liabilities**

Refer to Note 30 (Pension liabilities) and Note 36 (Pension schemes).

The University has net defined benefit pension plans with a net liability of £776.3m (2021: £1,091.9m) and Group has defined benefit pensions plans with net liabilities of £790.9m (2021: £1,099.1m). Both of which are significant in the context of the University and Group balance sheets. The University and Group also hold a liability in respect of the deficit reduction agreement for the multi-employer Universities Superannuation Scheme ('USS') of £437.3m and £423.7m respectively. £288.2m (2021: £807.7m) of the University and Group's net pension liabilities relate to the CPS scheme.

For the CPS and Press scheme, there are a range of assumptions which can be used by actuaries depending upon the individual circumstances of the scheme, and a change of a few percentage points in the assumptions can have a significant financial impact.

The defined pension scheme is in a net liability position, which is material to both the University and Group. This position is affected both by the asset side (value of the schemes' underlying assets referred to above as part of the complex PIV's key audit matter) and the liability side (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 recognised in relation to USS reflects the results of the 2020 actuarial valuation and, similarly, is calculated using certain subjective assumptions such as discount rate and changes in staff costs (comprising both staff numbers and salary inflation).

Group and University

How our audit addressed the key audit matter

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 experts 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 used our actuarial experts to challenge and assess the reasonableness of the key assumptions used by the University's and Press & Assessment's actuaries in the valuation reports e.g. discount rate, inflation, salary / pension increases, mortality and challenged them in relation to our own benchmarks to ensure they were within appropriate ranges.

We have assessed the methodology to support the financial assumptions that have been updated in the year.

We performed testing over the census data on which the valuation is based. We obtained an understanding of the checks performed by the Actuary on the completeness of the data. We agreed a sample of member records between the administration records and the actuary's records to confirm consistency of data. For a sample of new joiners in the year we also agreed the start dates and salary data to HR records. Based on the procedures performed above, we found the methodologies and assumptions used by management in the valuation of CPS and Press to be reasonable.

In respect of the USS deficit recovery provision we have tested the contribution data and key assumptions and were satisfied that those used for the USS provision were reasonable. Our actuarial experts have confirmed the integrity of the underlying model used for the calculation of the closing liability. Based on the procedures performed above, we found the methodologies and assumptions used by management in the valuation of USS to be reasonable.

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	£21.8 million (2021: £21.2 million).	£19.0 million (2021: £18.4 million).
How we determined it	1% of total income.	1% of total income capped by Group materiality allocation.
Rationale for benchmark applied	A key performance indicator for the Group and this is a generally accepted measure applied when auditing organisations with social objectives, to calculate overall materiality.	A key performance indicator for the University and this is a generally accepted measure applied when auditing organisations with social objectives, to calculate overall materiality.

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 between £17.0 million and £19.0 million. Certain components were audited to a local statutory audit materiality that was also less than our overall Group materiality.

We use performance materiality to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds overall materiality. Specifically, we use performance materiality in determining the scope of our audit and the nature and extent of our testing of account balances, classes of transactions and disclosures, for example in determining sample sizes. Our performance materiality was 75% (2021: 75%) of overall materiality, amounting to £16.4 million (2021: £15.9 million) for the Group financial statements and £14.3 million (2021: £13.8 million) for the University financial statements.

In determining the performance materiality, we considered a number of factors – the history of misstatements, risk assessment and aggregation risk and the effectiveness of controls – and concluded that an amount at the upper end of our normal range was appropriate.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above £1.0 million (Group audit) (2021: £1.0 million) and £1.0 million (University audit) (2021: £0.9 million) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Conclusions relating to going concern

Our evaluation of the Council's assessment of the Group's and the University's ability to continue to adopt the going concern basis of accounting included:

- We reviewed management's analysis and models, and how these have been applied to a going concern assessment period to 31 July 2030. These included base forecast assumptions and a set of stress tests and considered whether these were reasonable and appropriate in light of our knowledge of the Group, University and sector and past performance.
- We have confirmed the mathematical accuracy of the model.
- We validated the liquidity position of the Group and in particular the extent of unrestricted and available cash and equivalent resources, and considered the extent of headroom these resources provided against the stress tests.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group's and the University's ability to continue as a going concern for a period of at least twelve months from the date on which the financial statements are authorised for issue.

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

However, because not all future events or conditions can be predicted, this conclusion is not a guarantee as to the Group and University's ability to continue as a going concern.

Our responsibilities and the responsibilities of the Council with respect to going concern are described in the relevant sections of this report.

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. 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 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 504, the Council is responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The Council is also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Council is responsible for assessing the Group and 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 and 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.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

Based on our understanding of the University/industry, we identified that the principal risks of non-compliance with laws and regulations related to the Office for Students Regulatory Framework under the Charities Act 2011 including the terms and conditions of funding and employment legislations, 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 financial statements such as the Office for Students' Accounts Direction (OfS 2019.41) and tax regulations. 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 posting inappropriate journal entries to manipulate income, misappropriation of assets and the potential for management bias in significant accounting estimates. The Group engagement team shared this risk assessment with the component auditors so that they could include appropriate audit procedures in response to such risks in their work.

Audit procedures performed by the Group engagement team and/or component auditors included:

- Discussing with management, internal legal counsel and review of internal audit reports, including consideration of known or suspected instances of non-compliance with laws and regulations, and fraud;
- Reviewing correspondence between the University, the Office for Students and other regulators in relation to compliance with laws and regulations;
- Performing procedures to ensure the financial statements are appropriately prepared and disclosed in line with the Office for Students' Accounts Direction (OfS 2019.41);
- Inspecting the Group and University's minutes to ensure we have identified any possible non-compliance reported internally;
- Challenging assumptions and judgements made by management in their significant accounting estimates and judgements, in particular in relation to the recoverability of research debtors, the valuation of investment properties, the valuation of complex PIV's, CPI-linked listed bond and pension scheme liabilities valuation;
- Identifying and testing journal entries, in particular focusing on unusual account combinations to revenue, entries related to cash disbursement outside the normal purchasing and payables cycle, and entries containing the names of related party of the Group and the University;
- Incorporation of an element of unpredictability around the nature, timing or extent of our testing and performed testing over the validity of supplier information; and
- Performing department visits.

There are inherent limitations in the audit procedures described above. We are less likely to become aware of instances of non-compliance with laws and regulations that are not closely related to events and transactions reflected in the financial statements. 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.

Our audit testing might include testing complete populations of certain transactions and balances, possibly using data auditing techniques. However, it typically involves selecting a limited number of items for testing, rather than testing complete populations. We will often seek to target particular items for testing based on their size or risk characteristics. In other cases, we will use audit sampling to enable us to draw a conclusion about the population from which the sample is selected.

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

Use of this report

This report, including the opinions, has been prepared for and only for the Council of the University 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 Student's Accounts Direction (OfS 2019.41)

In our opinion, in all material respects:

- funds from whatever source administered by the University for specific purposes have been properly applied to those purposes and, if relevant, managed in accordance with relevant legislation;
- funds provided by the Office for Students, UK Research and Innovation (including Research England), the Education and Skills Funding Agency and the Department for Education have been applied in accordance with the relevant terms and conditions.

Under the Office for Students' Accounts Direction, we are required to report to you, if we have anything to report in respect of the following matters:

- The University's grant and fee income, as disclosed in Note 10 to the financial statements, has been materially misstated; or
- The University's expenditure on access and participation activities for the financial year, as disclosed in Note 16 to the financial statements, has been materially misstated.

We have no matters 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 14 years, covering the years ended 31 July 2009 to 31 July 2022.

Andy Grimbley (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
Cambridge
28 November 2022

Consolidated and University statement of comprehensive income for the year ended 31 July 2022

	Note	Group Year ended 31 July 2022 £m	Group Year ended 31 July 2021 £m	University Year ended 31 July 2022 £m	University Year ended 31 July 2021 £m
Income					
Tuition fees and education contracts	5	376.2	339.5	362.5	332.1
Funding body grants	6	197.3	212.9	197.3	212.9
Research grants and contracts	7	551.8	588.6	540.9	580.4
Examination, assessment and publishing services	8	860.1	759.3	703.2	642.4
Donations and endowments	9	52.8	112.6	43.9	102.6
Other income	11	167.0	161.8	145.2	146.5
Investment income	12	13.6	2.2	7.7	2.2
Total income	13	2,218.8	2,176.9	2,000.7	2,019.1
Expenditure					
Staff costs					
– Excluding impact of USS deficit recovery	14	1,044.4	984.5	944.2	896.8
– Movement in USS pension deficit recovery provision	30	260.8	6.1	253.3	6.3
		1,305.2	990.6	1,197.5	903.1
Other operating expenses	15	1,039.7	922.6	938.1	838.3
Depreciation	15, 21	100.8	104.4	98.6	102.3
Interest and other finance (income) / costs	15, 17	(144.6)	55.6	(144.7)	55.6
Total expenditure		2,301.1	2,073.2	2,089.5	1,899.3
(Deficit) / Surplus before other gains and losses and share of surplus in joint ventures and associates					
		(82.3)	103.7	(88.8)	119.8
Share of operating surplus in joint ventures and associates		0.4	1.4	–	–
Gain / (loss) on disposal of fixed assets		7.5	(1.1)	7.8	(1.1)
Gain on other investments	23a	201.9	775.8	159.8	619.5
Gain / (loss) on investment property	23b	(2.9)	5.8	(2.9)	5.8
Surplus for the year before taxation		124.6	885.6	75.9	744.0
Taxation	18	(4.4)	(2.1)	(1.2)	(1.4)
Surplus for the year		120.2	883.5	74.7	742.6
Other comprehensive income / (expense):					
Actuarial gain	30, 31	596.0	30.0	595.9	30.0
Gain / (loss) arising on foreign currency translation		1.2	(2.8)	(0.6)	(2.1)
Total comprehensive income for the year		717.4	910.7	670.0	770.5
Represented by:					
Endowment comprehensive income for the year		98.7	445.7	92.2	383.2
Restricted comprehensive income for the year		7.7	129.0	7.5	129.1
Unrestricted comprehensive income for the year		611.0	336.0	570.3	258.2
		717.4	910.7	670.0	770.5

Group Total comprehensive income includes £5.0m (2020–21: £2.5m) attributable to non-controlling interests.

Consolidated and University statement of financial position as at 31 July 2022

	Note	Group Year ended 31 July 2022 £m	Group Year ended 31 July 2021 (restated*) £m	University Year ended 31 July 2022 £m	University Year ended 31 July 2021 (restated*) £m
Non-current assets					
Intangible assets and goodwill	20	105.4	93.0	93.2	88.4
Tangible assets	21	2,749.3	2,734.6	2,748.0	2,733.2
Heritage assets	22	82.2	77.4	82.1	77.4
Investments – other investments	23a	4,207.2	3,713.3	3,541.2	3,068.2
Investments – investment property	23b	562.2	589.9	562.2	589.9
Investments in joint ventures	23a	7.8	8.8	–	0.9
Investments in associates	23a	–	0.9	–	0.9
		7,714.1	7,217.9	7,026.7	6,558.9
Current assets					
Stock and work in progress	24	52.4	46.7	45.8	42.3
Trade and other receivables	25	423.7	435.0	437.2	418.6
Investments	26	843.5	879.3	1,484.4	1,506.3
Cash and cash equivalents	27	553.3	644.2	450.5	578.1
		1,872.9	2,005.2	2,417.9	2,545.3
Creditors: amounts falling due within one year	28	(1,099.7)	(993.2)	(1,725.3)	(1,588.1)
Net current assets		773.2	1,012.0	692.6	957.2
Total assets less current liabilities		8,487.3	8,229.9	7,719.3	7,516.1
Creditors: amounts falling due after more than one year	29	(983.8)	(1,125.3)	(970.2)	(1,115.1)
Pension liabilities	30	(790.9)	(1,099.1)	(776.3)	(1,091.9)
Other retirement benefits liabilities	31	(19.7)	(26.0)	(19.7)	(26.0)
Total net assets		6,692.9	5,979.5	5,953.1	5,283.1
Restricted reserves					
Income and expenditure reserve – endowment	32	2,476.9	2,378.2	2,123.0	2,030.8
Income and expenditure reserve – restricted	33	190.1	182.4	189.5	182.0
Unrestricted reserves					
Income and expenditure reserve – unrestricted		4,025.9	3,418.9	3,640.6	3,070.3
Total reserves		6,692.9	5,979.5	5,953.1	5,283.1

* Refer to Note 43 on page 567 for details of the restatement.

Group Unrestricted reserves includes £6.8m (2020–21: £5.5m) attributable to non-controlling interests.

The financial statements on pages 512 to 567 were approved by the Council on 28 November 2022 and signed on its behalf by:

Dr Anthony Freeling
Acting Vice-Chancellor

Gaenor Bagley
Member of the Council

David Hughes
Director of Finance

Consolidated and University statement of changes in reserves for the year ended 31 July 2022

	Endowment £m	Restricted £m	Unrestricted £m	Total £m
<i>Group</i>				
Balance at 1 August 2020	1,932.5	153.5	2,983.0	5,069.0
Surplus for the year ended 31 July 2021	445.7	129.0	308.8	883.5
Other comprehensive income	–	–	27.2	27.2
Total comprehensive income for the year ended 31 July 2021	445.7	129.0	336.0	910.7
Release of restricted capital funds spent in the year ended 31 July 2021	–	(100.1)	100.1	–
Dividend paid to non-controlling interest	–	–	(0.2)	(0.2)
Balance at 31 July 2021	2,378.2	182.4	3,418.9	5,979.5
Surplus for the year ended 31 July 2022	98.7	7.7	13.8	120.2
Other comprehensive income	–	–	597.2	597.2
Total comprehensive income for the year ended 31 July 2022	98.7	7.7	611.0	717.4
Dividend paid to non-controlling interest	–	–	(3.7)	(3.7)
Other movements	–	–	(0.3)	(0.3)
Balance at 31 July 2022	2,476.9	190.1	4,025.9	6,692.9
<i>University</i>				
Balance at 1 August 2020	1,647.6	153.0	2,712.0	4,512.6
Surplus for the year ended 31 July 2021	383.2	129.1	230.3	742.6
Other comprehensive income	–	–	27.9	27.9
Total comprehensive income for the year ended 31 July 2021	383.2	129.1	258.2	770.5
Release of restricted capital funds spent in the year ended 31 July 2021	–	(100.1)	100.1	–
Balance at 31 July 2021	2,030.8	182.0	3,070.3	5,283.1
Surplus for the year ended 31 July 2022	92.2	7.5	(25.0)	74.7
Other comprehensive income	–	–	595.3	595.3
Total comprehensive income for the year ended 31 July 2022	92.2	7.5	570.3	670.0
Balance at 31 July 2022	2,123.0	189.5	3,640.6	5,953.1

Group Unrestricted reserves includes £6.8m (2020–21: £5.5m) attributable to non-controlling interests.

Consolidated statement of cash flows for the year ended 31 July 2022

	<i>Note</i>	Group Year ended 31 July 2022 £m	Group Year ended 31 July 2021 (restated*) £m
Cash flow from operating activities			
Surplus for the year before taxation		124.6	885.6
Adjustments for non-cash items:			
Depreciation	<i>15, 21</i>	100.8	104.4
Amortisation of intangible assets	<i>20</i>	29.7	36.6
Gain on investments		(199.0)	(781.6)
(Increase) / decrease in stock and work in progress	<i>24</i>	(5.7)	3.5
Decrease / (increase) in trade and other receivables		11.3	(42.2)
Increase in creditors		17.5	13.9
Revision of deficit recovery cost recognised in the year	<i>14, 30</i>	260.8	6.1
Other pension costs less contributions payable	<i>30</i>	20.9	18.2
Other retirement benefit costs less contributions payable	<i>31</i>	(0.4)	(0.3)
Receipt of donated assets	<i>22</i>	(4.8)	(3.7)
Currency adjustments		(0.9)	2.8
Adjustments for investing or financing activities:			
Investment income	<i>12</i>	(13.6)	(2.2)
Interest payable	<i>17</i>	21.5	21.2
(Credit) / charge for revaluation of index linked bonds	<i>17</i>	(182.2)	17.0
New endowments	<i>9</i>	(4.7)	(47.9)
Capital grants and donations		(45.1)	(109.8)
Share of joint venture and associates net surplus		(0.4)	(1.4)
(Gain) / loss on the sale of fixed assets		(7.9)	1.1
Net cash inflow from operating activities before taxation		122.4	121.3
Taxation	<i>18</i>	(4.4)	(2.1)
Net cash inflow from operating activities after taxation		118.0	119.2
Cash flows from investing activities			
New endowments	<i>9</i>	4.7	47.9
Capital grants and donations		45.1	109.8
Proceeds from sales of fixed assets		8.5	0.2
Proceeds of sales: North West Cambridge		13.2	–
Proceeds from sales of other non-current asset investments		29.6	12.0
Net disposals / (acquisitions) of other current asset investments		97.6	(61.4)
Investment income	<i>12</i>	13.6	2.2
Payments made to acquire intangible assets	<i>20</i>	(36.3)	(31.1)
Net payments made on purchase of a business		(4.7)	–
Payments made to acquire fixed assets		(124.6)	(198.2)
Net (acquisition) / sale of CUEF investment assets		(179.8)	547.9
Payments made to acquire other non-current asset investments		(273.6)	(17.0)
Payments made re North West Cambridge development costs		(5.9)	(6.4)
Net cash (outflow) / inflow from investing activities		(412.6)	405.9
Cash flows from financing activities			
Interest paid		(21.0)	(21.3)
Dividend payment to non-controlling interest	<i>34</i>	(3.7)	(0.2)
Drawdown of secured CUEF borrowings		40.4	–
Colleges and Associated bodies – CUEF subscriptions		60.8	33.5
Colleges and Associated bodies – CUEF redemptions		–	(81.0)
Colleges and Associated bodies – CUEF distributions		(9.8)	(8.9)
Net cash inflow / (outflow) from financing activities		66.7	(77.9)
(Reduction) / increase in cash and cash equivalents in the year		(227.9)	447.2
Cash and cash equivalents at beginning of the year		1,001.5	554.3
Cash and cash equivalents at end of the year		773.6	1,001.5
Represented by:			
Cash and cash equivalents	<i>27</i>	553.3	644.2
Cash and cash equivalents – CUEF	<i>23a</i>	220.3	362.1
Bank overdrafts	<i>28</i>	–	(4.8)
		773.6	1,001.5

* Refer to Note 43 on p. 567 for details of the restatement.

Notes to the accounts for the year ended 31 July 2022

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 legislation. The University is a public benefit entity and an exempt charity subject to regulation by the Office for Students (OfS) 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, the Statement of Recommended Practice: Accounting for Further and Higher Education 2019 (the SORP) and the Accounts Direction issued by the OfS.

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, 11.42, 11.44, 11.45, 11.47, 11.48(a) (iii), 11.48(a)(iv), 11.48(b), 11.48(c), 12.26, 12.27, 12.29(a), 12.29(b) and 12.29A, 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 as well as 10 year plans for Academic University 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
- in considering the going concern of the University, the Council has considered the forecasts and cash position to July 2024 and has considered the liquidity under a severe yet plausible downside scenario to ensure adequate headroom is available to the University. Potential impact of credit risk and liquidity risk are detailed in Note 40.

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 37. Entities over which the Group has the power to direct the relevant activities so as to affect the returns to the Group, generally through control over the financial and operating policies, are accounted for as subsidiaries. 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.

Notes to the accounts for the year ended 31 July 2022 (continued)

3. Statement of significant accounting policies continued

References to the University reflect the teaching and research activities of the University (excluding subsidiary companies and Associated Trusts), together with the Press & Assessment (but excluding their subsidiary companies, joint ventures and associates). References to the Group reflect the teaching and research activities of the University together with the Press & Assessment, including all subsidiary companies, Associated Trusts, joint ventures and associates (see Note 37).

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. An entity is accounted for as an associate where the Group has the ability to exercise significant influence over that entity. The University accounts for joint ventures and associates using the equity method.

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 a subsidiary company is held at cost less accumulated impairment losses.

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 39.

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 and University's functional currency is pound sterling and the financial statements are presented in pound sterling and millions.

Foreign currency transactions are translated into the functional currency using the spot exchange rates at the dates 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 Group 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 & Assessment; 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.

Notes to the accounts for the year ended 31 July 2022 (continued)

3. Statement of significant accounting policies continued

Funding body grants and Research grants and contracts

All grant funding, including OfS 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. In respect of grants where no performance related conditions are defined, income is recognised on the basis of proportionate costs incurred on such grants.

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 and reported through permanent endowment reserves.
- 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 and reported through permanent endowment reserves.
- 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.

Other income

Other 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). The Press & Assessment 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.

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.

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.

Notes to the accounts for the year ended 31 July 2022 (continued)

3. Statement of significant accounting policies continued

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 36 to the accounts.

(g) Taxation

Current tax

The University's current tax is composed of UK and 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 substantively enacted by the year-end.

The University has charitable status in the UK 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. Certain of the University's non-UK subsidiaries benefit from equivalent or similar exemptions in their territories of tax residency.

Material commercial trading activities undertaken by the University are operated through its subsidiary companies, which are liable to UK Corporation Tax or equivalent taxes for non-UK tax resident subsidiaries. However, the taxable profits made by these UK companies are typically distributed as qualifying charitable donations, to the extent that the companies have distributable reserves, which would negate the liability.

Deferred tax

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.

VAT

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, as are the commercial activities undertaken by its UK subsidiaries. Non-UK subsidiaries undertaking commercial activities are liable to VAT or other turnover-based taxes such as Goods and Services Tax (GST) or US Sales Tax. Expenditure includes VAT charged by suppliers to the University where it is not recoverable and is likewise included in the cost of fixed assets.

(h) Intangible assets and goodwill

Software development and acquisition costs are capitalised where certain criteria are met 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 typically between 15 and 60 years (in exceptional circumstances up to 96 years). Leasehold properties are written off over the length of the lease.

Notes to the accounts for the year ended 31 July 2022 (continued)

3. Statement of significant accounting policies continued

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 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.

Cambridge University Endowment Fund ('CUEF')

The CUEF is controlled by the University, and as such forms part of the consolidated financial statements. The total assets of the CUEF are disclosed within 'Investments - other (non-current)' where beneficial ownership resides with the University, and in 'Investments - current' where beneficial ownership resides with Colleges and Associated Bodies, on the basis that the latter is substantially available for redemption in less than one year.

Amounts due to Colleges and Associated Bodies are classified as a financial liability within 'Creditors: amounts falling due within one year' as they are substantially available for redemption in less than one year and without material restriction. Other liabilities of the CUEF comprise derivative financial instruments and secured borrowings, and are disclosed under the appropriate financial statement line items.

Other investments

Marketable securities are valued using the quoted market prices at 31 July. Investments in spin-out companies are valued in accordance with the International Private Equity and Venture Capital Guidelines. Investments in equity instruments that are not publicly traded and whose fair values cannot be measured reliably are measured at cost less impairment.

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: certain properties under £500k in value will be valued by chartered surveyors employed by the University on the basis of estimated open market values on an existing use basis. Properties with values in excess of £500k will 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 will also be valued annually taking into account land values including any planning permission attributed to that 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.

Notes to the accounts for the year ended 31 July 2022 (continued)

3. Statement of significant accounting policies continued

(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. Cost includes the purchase price, including taxes, duties and transport and handling costs directly attributable to bringing the inventory to its present location and condition.

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 projected future 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 or a fixed term of three months or less at inception) 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 and 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 are 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 29); 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.

Notes to the accounts for the year ended 31 July 2022 (continued)

3. Statement of significant accounting policies continued

- 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 or are held within the CUEF where any change in fair value is reflected through investment gains or losses.
- 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 transaction

The University discloses transactions with related parties which are outlined in detail in Note 38 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 19).

(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.

Given the continued uncertainty in global and UK economic conditions, it is increasingly difficult to predict the impact on the Group's reported and future financial position. Valuations for the Group's investments (including properties, the endowment fund, spin-outs and other securities) and pension funds rely on third party and other market valuations. These valuations are subject to inherent uncertainty as global markets continue to fluctuate following the global pandemic. The resulting accounting estimates will therefore, by definition, be unlikely to 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 judgment 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.

(ii) Consolidation of the CUEF

As described in Note 3(k), the CUEF is considered to be controlled by the University, and as such forms part of the consolidated financial statements. The University, through its statutes and governance processes, and its ability to control the financial and operating policies of the CUEF so as to obtain benefits from its activities, is considered to meet the criteria of FRS 102 sections 9.4 and 9.5 with respect of demonstrating control.

Notes to the accounts for the year ended 31 July 2022 (continued)

4. Critical accounting judgements, estimates, and assumptions continued

(b) Key accounting estimates and assumption

(i) Impairment

Annually, the Group considers whether tangible (in particular assets under construction) 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 flow.

(ii) Investment valuations (Note 12)

The CUEF is comprised of a range of investment asset 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 valuations of the underlying listed and unlisted investments as supplied by the investment fund managers of those funds or partnerships. The principles applied by the investment fund managers 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.

The CUEF valuation was based on 30 June and the University has carried out an exercise to determine the fund valuation as at 31 July. Where July statements were not available, the Group has used the movement in indices for various asset classes to estimate the valuation changes from June to July. The indices chosen to be used for this exercise represented the underlying characteristics of these specific funds (i.e. geographic location, industry of the fund, similar markets). The use of these indices require judgment. The valuation approach was approved by the University's valuation Committee. A 10% change in the movement in valuation between 30 June 2022 and 31 July 2022 in assets where indices have been used would result in an increase / decrease of £7.5m in comprehensive income.

(iii) 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, key worker salary increases, whether break clauses will be taken, 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.

In the current year, one of the key estimates used by the valuers, based on historic performance and by analysing historic wage inflation, is rental growth of key worker housing of 2.5% for 2022 (2021: 2.5%).

The total investment property portfolio for key worker housing is £137.7m (2021: £140.0m). Total investment property has increased over last few years and a change in valuation of 10% would result in an increase / decrease of £56.2m in comprehensive income.

(iv) Defined benefit pension schemes and funding of pension deficits

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 estimate these factors to determine the net pension obligation in the statement of financial position (see Note 36). Sensitivity analysis is provided in Note 36.

Additionally, the University currently recognises a provision for its obligation to fund past deficits arising within the Universities Superannuation Scheme (USS) (see Note 30). 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 2020 actuarial valuation.

(v) CPI-linked bond valuation

The CPI-linked bond must be re-measured to fair value at each balance sheet date. This requires valuation estimates provided by third party valuers. Given the bond operates in an illiquid market this requires an estimate of the offer price (see Note 41 for more information on methodology). Sensitivity analysis is provided in Note 41.

Notes to the accounts for the year ended 31 July 2022 (continued)

5. Tuition fees and education contracts

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Full-time home / EU students	137.4	142.3	137.4	142.3
Full-time overseas (non-EU) students	168.5	138.6	168.5	138.6
Other course fees	43.8	28.7	30.1	21.3
Research Training Support Grants	26.5	29.9	26.5	29.9
	376.2	339.5	362.5	332.1

6. Funding body grants

Office for Students (OfS):				
Recurrent grant: teaching	18.8	17.8	18.8	17.8
Recurrent grant: research	144.3	133.7	144.3	133.7
Recurrent grant: museum funding	2.3	2.1	2.3	2.1
Other revenue grants	12.1	14.1	12.1	14.1
Total revenue grants	177.5	167.7	177.5	167.7
Capital grants recognised in the year	19.8	45.2	19.8	45.2
	197.3	212.9	197.3	212.9

7. Research grants and contracts

Research councils	169.7	200.2	169.7	200.2
UK-based charities	166.1	160.9	164.8	160.8
European Commission	50.7	52.5	50.7	52.5
UK industry	24.1	22.4	23.3	21.4
UK government	50.7	49.2	50.5	49.1
Other bodies	90.5	103.4	81.9	96.4
	551.8	588.6	540.9	580.4

Total research grants and contracts income includes grants of £9.3m (2021: £41.6m) towards the cost of buildings and £14.0m (2021: £21.8m) for the purchase of equipment.

8. Examination, assessment and publishing services

Examination fees	490.4	410.6	367.4	325.7
Publishing	348.7	302.7	315.9	272.0
Other examination and assessment services	21.0	46.0	19.9	44.7
	860.1	759.3	703.2	642.4

9. Donations and endowments

New endowments	4.7	47.9	4.2	43.6
Donations of, and for the purchase of, fixed assets	2.0	1.2	2.0	1.2
Donations of, and for the purchase of, heritage assets	4.8	3.7	4.8	3.7
Other donations with restrictions	19.2	43.1	11.6	36.9
Donations from subsidiary companies	–	–	6.0	4.9
Unrestricted donations	22.1	16.7	15.3	12.3
	52.8	112.6	43.9	102.6

Included within donations from subsidiary companies is £1.9m (2021: £1.0m) relating to capital donations received for the purchase of fixed assets.

Notes to the accounts for the year ended 31 July 2022 (continued)

10. Sources of grant and fee income

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Grant income from the OfS	22.0	23.5	22.0	23.5
Grant income from other bodies	175.3	189.4	175.3	189.4
Fee income for taught awards *	259.6	233.8	245.9	226.4
Fee income for research awards *	72.9	72.8	72.9	72.8
Fee income from non-qualifying courses *	43.7	32.9	43.7	32.9
	573.5	552.4	559.8	545.0

* Exclusive of Value Added Tax

Grant and fee income consist of Tuition fees and education contracts of £376.2m (2021: £339.5m) and Funding body grants of £197.3m (2021: £212.9m). Grant income from the OfS relates to income received by the University for the provision of, or in connection with, education-related activities. This includes recurrent teaching funding and non-recurrent funding, such as grants for capital infrastructure. Grant income from other bodies reflects grants from UK Research and Innovation (UKRI), Research England and other bodies. Fee income for taught and research awards includes fees received for both undergraduate and postgraduate awards but excludes research training support grants. Fee income from non-qualifying courses are fees paid by students (or others on their behalf) for non-credit-bearing courses, further education courses, research training support or any other courses not included in the other categories. The above table excludes the grant income received and reported through other income (see Note 11).

11. Other income

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Other services rendered	70.7	55.7	57.9	47.1
Health and hospital authorities	22.0	21.6	22.0	21.6
Residences, catering, and conferences	9.2	4.5	9.1	4.4
Income from intellectual property	4.9	6.7	3.4	4.0
Rental income	23.6	23.4	21.1	21.1
Grants received (other than those included in Notes 6 and 7 above)	5.8	14.0	2.7	9.9
Sundry income	30.8	35.9	29.0	38.4
	167.0	161.8	145.2	146.5

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.

12. Investment income

Investment returns generated by the Cambridge University Endowment Fund (CUEF) constitute a significant proportion of investment income. 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, University of 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 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 usually 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. The distributions funded by long-term capital growth are reflected in the statement of comprehensive income as a 'gain on investments' and in the statement of financial position in non-current asset investments, 'valuation gain on investment'.

For the year ended 31 July 2022 distributions by the CUEF totalled £121.5m (2021: £116.0m) all of which were funded by drawing on the long-term capital gain as investment expenses were more than investment income.

Notes to the accounts for the year ended 31 July 2022 (continued)

12. Investment income continued

A reconciliation between the income allocated to the various reserves on a distribution basis which is used for internal management purposes and the statement of comprehensive income is set out below:

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Net investment expense from underlying CUEF assets	(3.6)	(4.5)	(2.9)	(3.7)
Income from other investments including current asset investments and cash equivalents	17.2	6.7	10.6	5.9
Net investment income reported in financial statements	13.6	2.2	7.7	2.2
Distributions credited to unit holders	121.5	116.0	100.2	95.7
Income from other investments including current asset investments and cash equivalents	17.2	6.7	10.6	5.9
Investment Income on distribution basis	138.7	122.7	110.8	101.6

The amounts funded by the CUEF from long-term capital growth includes distribution to unit holders of £121.5m (2021: £116.0m) and CUEF expenses of £3.6m (2021: £4.5m), totalling £125.1m (2021: £120.5m).

Credited to:

Group	Total Investment Income 2022 £m	Amounts distributed from capital 2022 £m	Net Investment income 2022 £m	Net Investment income 2021 £m
Permanent endowment reserves	57.4	(58.5)	(1.1)	(1.8)
Expendable endowment reserves	21.2	(21.6)	(0.4)	(0.4)
Restricted reserves	2.8	(2.7)	0.1	(0.3)
Unrestricted reserves	57.3	(42.3)	15.0	4.7
	138.7	(125.1)	13.6	2.2
University				
Permanent endowment reserves	56.3	(58.2)	(1.9)	(2.4)
Expendable endowment reserves	9.8	(10.0)	(0.2)	(0.1)
Restricted reserves	2.7	(2.7)	–	(0.1)
Unrestricted reserves	42.0	(32.2)	9.8	4.8
	110.8	(103.1)	7.7	2.2

13. Total income

Consolidated total income of £2,218.8m (2021: £2,176.9m) is credited to reserves as follows:

	Group: Year ended 31 July 2022			Group: Year ended 31 July 2021		
	Endowments £m	Restricted £m	Unrestricted £m	Endowments £m	Restricted £m	Unrestricted £m
Tuition fees and education contracts	–	–	376.2	–	–	339.5
Funding body grants	–	19.8	177.5	–	45.2	167.7
Research grants and contracts	–	50.0	501.8	–	72.3	516.3
Examination, assessment & publishing services	–	–	860.1	–	–	759.3
Donations and endowments	4.7	(29.7)	77.8	47.9	38.5	26.2
Other income	–	5.8	161.2	–	9.0	152.8
Investment income	(1.5)	0.1	15.0	(2.2)	(0.3)	4.7
	3.2	46.0	2,169.6	45.7	164.7	1,966.5

Notes to the accounts for the year ended 31 July 2022 (continued)

13. Total income continued

Consolidated total income of £2,218.8m (2021: £2,176.9m) is attributable as follows to the three broad categories defined by FRS 102: revenue, government grants, and non-exchange transactions:

	Revenue £m	Government grants £m	Non- exchange transactions £m	Revenue £m	Government grants £m	Non- exchange transactions £m
Tuition fees and education contracts	349.7	26.5	–	309.6	29.9	–
Funding body grants	–	197.3	–	–	212.9	–
Research grants and contracts	–	271.1	280.7	–	301.9	286.7
Examination, assessment & publishing services	860.1	–	–	759.3	–	–
Donations and endowments	–	–	52.8	–	–	112.6
Other income	130.4	5.8	30.8	111.9	14.0	35.9
Investment income	13.6	–	–	2.2	–	–
	1,353.8	500.7	364.3	1,183.0	558.7	435.2

14. Staff costs

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Wages and salaries	780.0	735.0	694.1	660.0
Social security costs	84.9	74.9	75.8	68.8
Pension costs:				
Current service cost	189.5	183.1	184.2	176.2
Past service cost	–	–	–	–
Net change in underlying assumptions in calculating				
USS deficit recovery provision (see Note 30)	250.8	(2.4)	243.4	(1.9)
Total pension costs (see Note 36)	440.3	180.7	427.6	174.3
Total staff costs	1,305.2	990.6	1,197.5	903.1
The average number of staff employed in the year, expressed as full-time equivalents, was:	17,901	17,693		

Following the update for the 2020 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 £260.8m (2021: £6.1m). Cash contributions made to reduce the deficit in the year amounted to £10.0m (2021: £8.5m) resulting in a charge to staff costs of £250.8m (2021: credit of £2.4m) 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 Vice-Chancellor who was in post during 2021–22 completed his term of office on 30 September 2022, after five years in office. A new Vice-Chancellor has been appointed and will begin her term of office on 1 July 2023. An Acting Vice-Chancellor will be in post from 1 October 2022 to 30 June 2023. The disclosures in this note relate solely to the Vice-Chancellor who was in post during 2021–22.

Notes to the accounts for the year ended 31 July 2022 (continued)

14. Staff costs continued

The Vice-Chancellor's performance was assessed annually against objectives agreed by the Council. The Vice-Chancellor's remuneration was scheduled to be reviewed at the end of the fourth year of his/her term of office. Based on that assessment, the Council was scheduled to determine any salary increase, having been advised by the Remuneration Committee and taking due regard of salary growth across the wider University. However, the Vice-Chancellor elected not to participate in the remuneration reviews and consequently he did not 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 year from 1 August 2021 to 31 July 2022 with the comparative relating to the year from 1 August 2020 to 31 July 2021.

	2022 £'000	2021 £'000
Salary for the year	385	379
Deductions to reflect salary sacrifice arrangements	(10)	(9)
Net salary paid in the year	375	370
Taxable benefits in kind	52	24
Non-taxable benefits in kind	22	19
Total excluding employer pension contributions	449	413
Employer pension contributions	31	17
Payments made in lieu of pension	46	45
Total remuneration	526	475

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 £9,617 (2021: £9,475).

Taxable benefits in kind include private healthcare of £2,732 (2021: £4,883), and accommodation, utilities and property taxes of £49,750 (2021: £18,657).

HMRC wrote to all universities in April 2019 to warn that proposed changes to HMRC's interpretation of the relevant legislation would likely result in the provision of any accommodation associated with employment becoming a taxable benefit from 6 April 2021. For many universities, including Cambridge, the subsequent change affected official residences occupied by university leaders. The University of Cambridge had to reassess, from 6 April 2021, the way in which it covers the costs of the Vice-Chancellor's Lodge. The Lodge is provided to the Vice-Chancellor as part of his employment contract and the post holder is contractually required to reside there. The taxable accommodation benefit has been calculated on a basis agreed with HMRC, using the 'employer-related living accommodation' rules. The University Council approved an equalisation payment to the Vice-Chancellor in post during 2021–22 to cover the additional costs arising from the change in tax position, given the exceptional circumstances of the change occurring during the Vice-Chancellor's contract. Equalisation payments made during the year relate to liabilities that arose during the current and previous years. These payments are not additional remuneration; they were made to ensure that the Vice-Chancellor's financial position was the same as it was before HMRC made this change. Such equalisation payments will not be made to the new Vice-Chancellor.

Non-taxable benefits include flights home and related airport transfers of £22,324 (2021: £5,117).

Pay ratios:

- The Vice-Chancellor's basic salary is 10.5 times (2021: 10.7) 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.
- The Vice-Chancellor's total remuneration is 11.9 times (2021: 11.2) 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 increase is due primarily to the change in tax treatment for accommodation and the increase in non-taxable benefits noted above.

The median pay calculation includes over 1,013 (2021: 832) agency staff employed on temporary contracts through the University's Temporary Employment Services (TES).

Notes to the accounts for the year ended 31 July 2022 (continued)

14. Staff costs continued

Basic salary bandings for higher paid staff

The number of staff (FTEs) with a basic salary (including market pay supplements) in excess of £100,000 per annum, before salary sacrifice arrangements is outlined below:

	Group 2022	Group 2021		Group 2022	Group 2021
£100,001 – £105,000	91	83	£205,001 – £210,000	4	4
£105,001 – £110,000	117	81	£210,001 – £215,000	6	1
£110,001 – £115,000	68	66	£215,001 – £220,000	2	2
£115,001 – £120,000	69	48	£220,001 – £225,000	6	–
£120,001 – £125,000	49	33	£225,001 – £230,000	2	1
£125,001 – £130,000	36	29	£230,001 – £235,000	1	1
£130,001 – £135,000	25	18	£235,001 – £240,000	1	–
£135,001 – £140,000	20	13	£240,001 – £245,000	1	1
£140,001 – £145,000	21	14	£245,001 – £250,000	2	2
£145,001 – £150,000	20	23	£295,001 – £300,000	1	1
£150,001 – £155,000	20	7	£305,001 – £310,000	1	1
£155,001 – £160,000	7	12	£325,001 – £330,000	–	1
£160,001 – £165,000	13	6	£335,001 – £340,000	–	1
£165,001 – £170,000	4	4	£340,001 – £345,000	1	–
£170,001 – £175,000	10	7	£345,001 – £350,000	1	–
£175,001 – £180,000	6	6	£375,001 – £380,000	–	1
£180,001 – £185,000	5	5	£380,001 – £385,000	1	–
£185,001 – £190,000	6	7	£390,001 – £395,000	–	1
£190,001 – £195,000	2	5	£480,001 – £485,000	1	–
£195,001 – £200,000	1	3			
£200,001 – £205,000	4	3			
				625	491

The above statistics include staff engaged in business and commercial activities, including those of Cambridge Press & Assessment. The above bandings also include the Vice-Chancellor.

Compensation for loss of office

Aggregate payments for compensation for loss of office were paid to 486 members of staff in 2021–22 (460 in 2020–21):

	Group 2022 £000	Group 2021 £000
Payments in respect of loss of office	5,094	5,431
Key management personnel		
The total remuneration of the Vice-Chancellor, the Pro-Vice-Chancellors, Chief Financial Officer and Registry for the year (or part thereof), comprising salary and benefits (taxable and non taxable), employer pension contributions and before salary sacrifice arrangements, was:	2,263	2,159

Notes to the accounts for the year ended 31 July 2022 (continued)

15. Analysis of consolidated expenditure by activity

	Staff costs £m	Other operating expenses £m	Depreciation £m	Interest payable £m	Group 2022 Total £m	Group 2021 Total £m
Academic departments	304.2	59.4	6.5	–	370.1	356.4
Academic services	41.3	14.6	1.4	–	57.3	48.7
Payments to Colleges (see Note 39)	–	84.7	–	–	84.7	80.4
Research grants and contracts	247.9	197.1	20.9	–	465.9	471.5
Other activities:						
The Press and Assessment	315.8	427.1	15.7	2.2	760.8	665.6
Other services rendered	24.4	41.5	0.5	–	66.4	56.7
Intellectual property	7.9	16.3	–	–	24.2	9.5
Residences, catering and conferences	2.3	10.5	–	–	12.8	5.2
Other activities total	350.4	495.4	16.2	2.2	864.2	737.0
Administration and central services:						
Administration	70.0	22.0	1.2	0.2	93.4	68.4
General educational	7.8	78.5	–	–	86.3	77.1
Staff and student facilities	4.1	1.0	–	–	5.1	4.5
Development office	8.3	5.7	–	–	14.0	12.8
Other	2.5	12.1	(0.3)	0.1	14.4	8.7
Administration and central services total	92.7	119.3	0.9	0.3	213.2	171.5
Premises	18.6	69.2	54.9	–	142.7	144.4
Interest payable on bond liabilities	–	–	–	(161.1)	(161.1)	38.1
Pension cost adjustments for USS (see Note 30)	232.4	–	–	1.4	233.8	(1.0)
Pension cost adjustments for CPS (see Note 36)	17.7	–	–	12.6	30.3	26.2
Total per statement of comprehensive income	1,305.2	1,039.7	100.8	(144.6)	2,301.1	2,073.2

	Group 2022 £000	Group 2021 £000
Other operating expenses include:		
Operating lease charges:		
Land and buildings	7,224	10,099
Other	877	665
At 31 July 2022 the Group has total commitments under non-cancellable operating leases of £7.0m (2020–21: £9.6m) not later than one year, £15.4m (2020–21: £14.3m) later than one year and not later than five years, and £11.9m (2020–21: £12.0m) later than five years.		
Auditors' remuneration:		
Audit fees payable to the Group's external auditors	1,185	1,315
Additional audit fee in respect of the prior year	–	80
Other fees payable to the Group's external auditors	75	75
Audit fees payable to other firms (in respect of certain Trusts and subsidiary undertakings)	188	129
Payments to trustees		
Reimbursement of expenses to two external members of Council (2021: nil).	3	–

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

Notes to the accounts for the year ended 31 July 2022 (continued)

16. Access and Participation expenditure

The spend incurred directly by the University in respect of access and widening participation activities for the financial year ended 31 July 2022 is outlined below.

	Group 2022 £m	Group 2021 £m
Access investment	1.8	1.6
Financial support for students	5.2	4.9
Support for disabled students	1.5	1.0
Research and evaluation	0.2	0.2
	8.7	7.7

Included within the above spend are staff costs amounting to £2.5m (2021 £2.2m) which are included within the staff note disclosures in Note 14.

The above spend reflects the investment made by the Academic University only and does not reflect any additional spend undertaken by the individual Colleges on these activities. The Colleges are not consolidated as part of the University's financial statements (see Note 1). However, due to the collegiate nature of the University, the access and participation plans provided to the OfS annually include activities undertaken by both the University and the Colleges. The combined University and Colleges access and participation plans, which do not form part of the audited financial statements, can be found at: <https://www.undergraduate.study.cam.ac.uk/access-and-participation-plans>.

Finally, financial support is also provided to students from around the world through associated Trusts of the University: the Commonwealth European and International Trust and the Gates Trust. This activity is not reflected in the above table.

17. Interest and other finance costs

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Interest payable (credit) / charge and other finance costs on bond liabilities (see Note 29)	(161.1)	38.1	(161.1)	38.1
Interest on pension liabilities (see Note 30)	15.9	14.3	15.8	14.3
Interest paid on other retirement benefit liabilities (see Note 31)	0.4	0.5	0.4	0.5
Finance charge associated with the revaluation of forward exchange contracts	0.2	2.7	0.2	2.7
	(144.6)	55.6	(144.7)	55.6

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 2052 (fixed interest)	13.2	13.2	13.2	13.2
Bond liabilities – unsecured 2078 (fixed interest)	7.1	7.1	7.1	7.1
Bond liabilities – unsecured 2068 (index-linked, amortising from 2028)	(181.4)	17.8	(181.4)	17.8
	(161.1)	38.1	(161.1)	38.1

Included within the 2068 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 credit recognised as a result of this revaluation is £182.2m (2021: charge of £17.0m).

For further details on these bond liabilities see Note 29.

Notes to the accounts for the year ended 31 July 2022 (continued)

18. Taxation

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
UK Corporation Tax	–	–	–	–
Foreign taxes	4.4	2.1	1.2	1.4
	4.4	2.1	1.2	1.4

The foreign taxes for the Group and University primarily relate to overseas activities associated with publishing and assessment activities. The Group operates in a variety of overseas jurisdictions with activities whose profits are subject to local taxes. The associated risks in operating internationally are managed within the University's tax departments. The Group has made payments on account totalling £7.9m (2021: £7.3m) in relation to an ongoing tax audit. These amounts are reflected in other debtors, as it is expected that the audits will conclude in the Group's favour.

Due to the exempt charity status of the University, the tax charge for UK Corporation Tax is typically nil. In addition, the University has £12.1m (2021: £12.1m) of unused Research Development Expenditure Credit (RDEC) brought forward from prior periods. This has not been recognised as an asset due to the lack of certainty that future taxable 'surpluses will be available against which to offset these credits.

19. Segment information

The Group's reportable segments are:

Academic University	Teaching and research undertaken by the University
Cambridge University Press & Assessment	Publishing, examination and assessment services, carried out by the Press & Assessment department of the University and its 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 12)
Trusts and other	The combination of smaller entities including the associated trusts and subsidiary companies not included in the other segments.

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. 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 CUEF to the financial year ended 31 July.

Notes to the accounts for the year ended 31 July 2022 (continued)

19. Segment information continued

	Academic University £m	Press and Assessment £m	CUEF £m	Trusts and other £m	Eliminations and adjustments £m	Group £m
Year ended 31 July 2022						
Total income						
External	1,273.1	868.5	194.6	76.8	(194.2)	2,218.8
Intersegment	151.2	4.3	–	100.2	(255.7)	–
Total	1,424.3	872.8	194.6	177.0	(449.9)	2,218.8
Surplus for the year	28.8	109.3	194.6	13.2	(225.7)	120.2
Included in surplus for the year:						
Investment income	108.4	1.6	(3.6)	25.5	(118.3)	13.6
Depreciation and amortisation	84.5	45.3	–	1.0	(0.3)	130.5
Interest payable	(146.9)	2.2	–	0.1	–	(144.6)
Gain / (loss) on disposal of fixed assets	8.2	(0.7)	–	–	–	7.5
Gain / (loss) on investments	51.7	6.7	198.2	18.7	(76.3)	199.0
Additions to intangible assets, fixed assets, heritage assets and investment property	119.5	50.4	–	0.4	0.2	170.5
Assets	7,543.1	1,221.2	4,083.7	724.8	(3,985.8)	9,587.0
Liabilities	(2,255.5)	(406.4)	(83.2)	(109.4)	(39.6)	(2,894.1)
Net assets	5,287.6	814.8	4,000.5	615.4	(4,025.4)	6,692.9

	Academic University £m	Press and Assessment £m	CUEF £m	Trusts and other £m	Eliminations and adjustments £m	Group £m
Year ended 31 July 2021						
Total income						
External	1,352.5	770.3	719.1	58.6	(723.6)	2,176.9
Intersegment	142.5	9.3	–	180.5	(332.3)	–
Total	1,495.0	779.6	719.1	239.1	(1,055.9)	2,176.9
Surplus for the year	676.6	109.9	719.1	131.3	(753.4)	883.5
Included in surplus for the year:						
Investment income	100.6	3.4	(4.9)	18.7	(115.6)	2.2
Depreciation and amortisation	87.3	52.8	–	1.2	(0.3)	141.0
Interest payable	53.0	2.6	–	–	–	55.6
Gain / (loss) on disposal of fixed assets	0.1	(1.2)	–	–	–	(1.1)
Gain on investments	524.3	15.5	723.9	121.2	(603.3)	781.6
Additions to intangible assets, fixed assets, heritage assets and investment property	216.5	35.9	–	0.3	(1.3)	251.4
Assets	7,475.4	1,119.9	3,804.5	704.0	(3,880.7)	9,223.1
Liabilities	(2,765.6)	(428.8)	(5.2)	(98.8)	54.8	(3,243.6)
Net assets	4,709.8	691.1	3,799.3	605.2	(3,825.9)	5,979.5

Notes to the accounts for the year ended 31 July 2022 (continued)

19. 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.

	2022 £m	2021 £m
Total income		
Elimination of intersegment income	(255.7)	(332.3)
Exclude investment gain element of CUEF total return	(194.4)	(723.9)
Exclude CUEF investment income attributable to external investors	0.2	0.3
Total eliminations and adjustments	(449.9)	(1,055.9)
Surplus for the year		
Eliminate CUEF surplus recognised in other segments or attributable to external investors	(194.6)	(719.1)
Eliminate transfers from other segments to Academic University based on surpluses	(30.3)	(28.1)
Elimination of intersegment funding commitments	1.8	(1.5)
Eliminate intersegment surplus on transfer of fixed assets	–	(1.4)
Eliminate other intersegment balances	(2.6)	(3.3)
Total eliminations and adjustments	(225.7)	(753.4)

	Assets 2022 £m	Liabilities 2022 £m	Net assets 2022 £m	Net assets 2021 £m
Assets and liabilities				
Eliminate CUEF assets recognised in other segments or attributable to external investors	(3,672.9)	(327.6)	(4,000.5)	(3,799.3)
Eliminate accrual for intersegment funding commitments	–	23.8	23.8	22.0
Eliminate intersegment surplus on transfers of fixed assets	(39.2)	–	(39.2)	(38.2)
Eliminate investments in subsidiaries	(6.6)	6.6	–	–
Eliminate intersegment balances	(267.1)	257.6	(9.5)	(10.4)
Total eliminations and adjustments	(3,985.8)	(39.6)	(4,025.4)	(3,825.9)

Notes to the accounts for the year ended 31 July 2022 (continued)

20. Intangible assets and goodwill

Group	Software £m	Goodwill £m	Others £m	2022 Total £m	2021 Total £m
Cost					
At 1 August	271.6	31.9	20.1	323.6	302.4
Additions	33.3	6.0	3.0	42.3	31.1
Disposals	(1.4)	–	–	(1.4)	(9.4)
Currency adjustments	0.7	–	–	0.7	(0.5)
At 31 July	304.2	37.9	23.1	365.2	323.6
Accumulated amortisation					
At 1 August	191.7	24.8	14.1	230.6	202.3
Charge for the year	25.5	2.4	1.8	29.7	36.6
Disposals	(1.0)	–	–	(1.0)	(8.1)
Currency adjustments	0.6	(0.1)	–	0.5	(0.2)
At 31 July	216.8	27.1	15.9	259.8	230.6
Net book value					
At 31 July	87.4	10.8	7.2	105.4	93.0
At 1 August	79.9	7.1	6.0	93.0	100.1
University	Software £m	Goodwill £m	Others £m	2022 Total £m	2021 Total £m
Cost					
At 1 August	259.8	8.0	22.7	290.5	269.8
Additions	31.4	–	–	31.4	29.4
Disposals	(1.4)	–	–	(1.4)	(8.7)
At 31 July	289.8	8.0	22.7	320.5	290.5
Accumulated amortisation					
At 1 August	182.8	2.5	16.8	202.1	181.6
Charge for the year	23.6	0.7	1.7	26.0	28.0
Disposals	(0.8)	–	–	(0.8)	(7.5)
At 31 July	205.6	3.2	18.5	227.3	202.1
Net book value					
At 31 July	84.2	4.8	4.2	93.2	88.4
At 1 August	77.0	5.5	5.9	88.4	88.2

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 2022 (continued)

21. Tangible assets

Group	Non-					2022 Total £m	2021 Total £m
	Land £m	Leasehold Buildings £m	Leasehold Buildings £m	Assets in construction £m	Equipment £m		
Cost							
At 1 August	372.4	1,951.5	361.9	345.5	475.3	3,506.6	3,323.4
Additions	–	1.8	0.4	84.5	28.2	114.9	198.8
Transfers	–	56.5	55.1	(112.1)	0.5	–	–
Transfers to investment properties	–	–	–	–	–	–	(1.1)
Disposals	–	(0.1)	(0.1)	–	(11.7)	(11.9)	(13.4)
Currency adjustments	0.2	–	0.1	–	1.6	1.9	(1.1)
At 31 July	372.6	2,009.7	417.4	317.9	493.9	3,611.5	3,506.6
Accumulated depreciation							
At 1 August	–	324.4	51.8	–	395.8	772.0	682.1
Charge for the year	–	55.0	10.3	–	35.5	100.8	104.4
Transfers to investment properties	–	–	–	–	–	–	(0.2)
Disposals	–	–	–	–	(11.3)	(11.3)	(13.4)
Currency adjustments	–	0.1	–	–	0.6	0.7	(0.9)
At 31 July	–	379.5	62.1	–	420.6	862.2	772.0
Net book value							
At 31 July	372.6	1,630.2	355.3	317.9	73.3	2,749.3	2,734.6
At 1 August	372.4	1,627.1	310.1	345.5	79.5	2,734.6	2,641.3

The net book value of leasehold land included in the above table is £30.8m (2021: £30.8m).

University	Non-					2022 Total £m	2021 Total £m
	Land £m	Leasehold Buildings £m	Leasehold Buildings £m	Assets in construction £m	Equipment £m		
Cost							
At 1 August	372.4	1,955.3	353.2	349.3	464.6	3,494.8	3,307.9
Additions	–	1.8	–	85.1	26.8	113.7	199.7
Transfers	–	56.6	55.1	(112.2)	0.5	–	–
Transfers to investment properties	–	–	–	–	–	–	(0.9)
Disposals	–	(0.1)	–	–	(11.3)	(11.4)	(12.3)
Currency adjustments	0.2	(1.6)	(0.1)	0.9	–	(0.6)	0.4
At 31 July	372.6	2,012.0	408.2	323.1	480.6	3,596.5	3,494.8
Accumulated depreciation							
At 1 August	–	325.2	49.1	–	387.3	761.6	671.0
Charge for the year	–	55.1	9.6	–	33.9	98.6	102.3
Transfers to investment properties	–	–	–	–	–	–	(0.1)
Disposals	–	–	–	–	(11.3)	(11.3)	(12.2)
Currency adjustments	–	(0.7)	–	–	0.3	(0.4)	0.6
At 31 July	–	379.6	58.7	–	410.2	848.5	761.6
Net book value							
At 31 July	372.6	1,632.4	349.5	323.1	70.4	2,748.0	2,733.2
At 1 August	372.4	1,630.1	304.1	349.3	77.3	2,733.2	2,636.9

The net book value of leasehold land included in the above table is £30.8m (2021: £30.8m).

Notes to the accounts for the year ended 31 July 2022 (continued)

22. Heritage assets

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Opening balance	77.4	73.6	77.4	73.6
Additions in the year	4.8	3.8	4.7	3.8
Closing balance at 31 July	82.2	77.4	82.1	77.4

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 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 3), 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. Additions for the current and previous four years were as follows:

	2022 £m	2021 £m	2020 £m	2019 £m	2018 £m
Acquisitions purchased with specific donations	–	–	–	–	1.1
Value of acquisitions by donation	4.8	3.7	1.6	1.4	2.2
Total acquired by, or funded by, donations	4.8	3.7	1.6	1.4	3.3
Acquisitions purchased with University funds	–	0.1	–	–	–
Total acquisitions capitalised	4.8	3.8	1.6	1.4	3.3

Notes to the accounts for the year ended 31 July 2022 (continued)

23. Non-current asset investments**(a) Other investments**

	Group 2022 £m	Group 2021 (restated*) £m	University 2022 £m	University 2021 (restated*) £m
Opening balance	3,723.0	3,121.5	3,070.0	2,606.6
Additions in the year	271.7	12.2	278.0	8.2
Disposals in the year	(10.2)	(9.9)	(6.1)	(8.1)
Transfers from / (to) cash and cash equivalents	24.7	(176.6)	44.2	(155.5)
Share of operating (deficit) / surplus in joint ventures and associates	(2.0)	1.4	(10.6)	–
Gains on investments	207.5	775.2	165.5	618.8
Currency adjustments	0.3	(0.8)	0.2	–
Closing balance at 31 July	4,215.0	3,723.0	3,541.2	3,070.0
Represented by:				
CUEF units (see Note 12)	3,756.1	3,542.0	3,115.2	2,915.0
CMAF units	244.7	–	244.7	–
Securities	35.4	19.6	28.7	12.2
Spin-out and similar companies (see Note 37)	170.9	151.6	108.3	94.4
Investments in subsidiary undertakings	–	–	43.3	45.8
Investments in joint ventures	7.8	8.8	–	0.9
Investments in associates	–	0.9	–	0.9
Other	0.1	0.1	1.0	0.8
	4,215.0	3,723.0	3,541.2	3,070.0

* Refer to Note 43 on page 567 for details of the restatement.

CUEF units of £3,756.1m include certain investment properties sold or transferred by the CUEF to Special Purpose Vehicles (SPVs) during the period. The SPVs have been assessed as being controlled by the CUEF (and in turn, the University), and are consolidated within the Group and University. The investment properties are valued at £147.7m at 31 July 2022. The SPVs have also recognised secured loans of £40.4m against the properties, disclosed in Note 29. The value of the SPVs, including the investment properties and secured loans, are included within the Real Assets category of the CUEF assets category breakdown on page 539.

Gains / (losses) on other investments

Gains / (losses) on Other investments included the following:

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Gains on CUEF investments	189.4	722.5	156.0	596.1
Losses on CMAF units	(5.3)	–	(5.3)	–
Gains on Securities	1.3	2.2	1.6	1.7
Gains on Spin-out and similar companies	22.1	50.5	13.2	21.0
Gains on non-current investments	207.5	775.2	165.5	618.8
(Losses) / gains on current asset investments	(5.6)	0.6	(5.7)	0.7
Gains on other investments	201.9	775.8	159.8	619.5

Notes to the accounts for the year ended 31 July 2022 (continued)

23. Non-current asset investments continued

(a) Other investments continued

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

	Group 31 July 2022		Group 31 July 2021	
	£m	%	£m	%
Public equity	1,645.6	41.1%	1,709.7	45.0%
Private equity	962.5	24.1%	741.8	19.5%
Absolute return	665.6	16.6%	501.7	13.2%
Credit	97.5	2.4%	114.1	3.0%
Real assets	398.2	10.0%	388.1	10.2%
Fixed interest / cash	231.1	5.8%	343.9	9.1%
Total value of fund	4,000.5	100.0%	3,799.3	100.0%

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

Private equity 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.

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 2022 £m	Group 2021 (restated*) £m	University 2022 £m	University 2021 (restated*) £m
Non current asset investments (Note 23), comprising	3,756.1	3,542.0	3,115.2	2,915.0
Investment assets	3,535.8	3,179.9	2,894.9	2,552.9
Cash and cash equivalents	220.3	362.1	220.3	362.1
Current asset investments (Note 26) – held on behalf of:	327.6	262.5	968.5	889.5
Subsidiary undertakings	–	–	640.9	627.0
Colleges	314.6	252.1	314.6	252.1
Other associated bodies	13.0	10.4	13.0	10.4
Derivative financial instrument liabilities (Note 28)	(42.8)	(5.2)	(42.8)	(5.2)
Secured borrowings (Note 29)	(40.4)	–	(40.4)	–
Total value of units	4,000.5	3,799.3	4,000.5	3,799.3

* Refer to Note 43 on page 567 for details of the restatement.

At 30 June 2022, the directly held property portfolio of the CUEF is valued by Knight Frank LLP in accordance with the standards of the Royal Institute of Chartered Surveyors, with an assessment then performed to update the value to 31 July 2022, where appropriate.

Notes to the accounts for the year ended 31 July 2022 (continued)

23. Non-current asset investments continued

(b) Investment property

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Opening balance	589.9	574.8	589.9	574.8
Additions in the year	7.7	17.8	7.7	17.8
Disposals in the year	(32.5)	(9.4)	(32.5)	(9.4)
Transfers from other balance sheet accounts	–	0.9	–	0.9
Net (loss) / gain from fair value adjustments	(2.9)	5.8	(2.9)	5.8
Closing balance	562.2	589.9	562.2	589.9
Represented by:				
North West Cambridge development	346.4	368.4	346.4	368.4
Other investment property	215.8	221.5	215.8	221.5
	562.2	589.9	562.2	589.9

Phase 1 of the North West Cambridge (NWC) development is substantially complete and includes accommodation for University staff and students, infrastructure and community facilities. The NWC development, including land for Phases 2 and 3, has been valued as at 31 July 2022 by an external valuer, Gerald Eve LLP, a regulated firm of Chartered Surveyors. The valuation was prepared in accordance with the RICS valuation – Global Standards (January 2022 edition) and the national standards and guidance set out in the UK national supplement (November 2018 edition) (collectively ‘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 loss in the carrying value of the investment of £14.8m (2021: £7.2m).

Other investment property is also revalued annually with properties valued in excess of £0.5m undertaken by independent external valuers and the balance valued internally by a registered valuer within University’s own Estates Management team. The annual valuation of these properties has resulted in a gain on investment of £11.9m (2021: £13.0m).

24. Stock and work in progress

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Goods for resale	25.3	20.2	20.4	17.5
Pre-publication costs and other work in progress	25.2	24.9	23.6	23.3
Other stock	1.9	1.6	1.8	1.5
	52.4	46.7	45.8	42.3

There is no significant difference between the replacement cost of the inventory and its carrying amount. Inventories are stated after a provision for impairment of £8.9m (2021: £9.5m).

25. Trade and other receivables

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Amounts due within one year:				
Research grants recoverable	119.8	118.0	120.9	118.0
Amounts due from group undertakings	–	–	29.5	12.7
Trade debtors	171.1	200.0	152.5	178.3
Other debtors	132.8	117.0	134.3	109.6
	423.7	435.0	437.2	418.6

The majority of non-research trade and other receivables relates to examination, assessment and publishing services. Debtors relating to examination, assessment and publishing services are included within the Group amounting to £213.3m (2021: £218.1m) and within the University amounting to £208.2m (2021: £200.0m). Trade and other receivables are stated after a provision for impairment of £31.2m (2021: £26.7m).

Notes to the accounts for the year ended 31 July 2022 (continued)

26. Current asset investments

	Group 2022 £m	Group 2021 £m (restated*)	University 2022 £m	University 2021 £m (restated*)
CUEF units held on behalf of other entities (Note 12)	327.6	262.5	968.5	889.5
Money market investments (Note 42)	221.2	316.4	221.2	316.4
Other current asset investments	294.7	300.4	294.7	300.4
	843.5	879.3	1,484.4	1,506.3

* Refer to Note 43 on page 567 for details of the restatement.

27. Cash and cash equivalents

	Group 2022 £m	Group 2021 £m (restated*)	University 2022 £m	University 2021 £m (restated*)
Money market investments with maturity less than three months	359.7	476.6	359.7	476.6
Cash at bank and in hand and with investment managers	193.6	167.6	90.8	101.5
	553.3	644.2	450.5	578.1

* Refer to Note 43 on page 567 for details of the restatement.

The movement in net debt is disclosed in Note 42.

28. Creditors: amounts falling due within one year

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Bank overdraft (see Note 42)	–	4.8	–	4.7
Finance leases (see Note 42)	0.1	0.1	0.1	0.1
Research grants received in advance	257.5	266.7	257.5	266.7
Other creditors and deferred income	472.5	450.0	356.9	332.4
Amounts due to group undertakings	–	–	21.9	25.4
Derivative financial instrument liabilities	43.4	5.4	43.4	5.4
Investments and cash equivalents held on behalf of subsidiary undertakings	–	–	719.3	687.2
Investments and cash equivalents held on behalf of Colleges and other associated bodies	326.2	266.2	326.2	266.2
	1,099.7	993.2	1,725.3	1,588.1

Deferred income of £115.9m (2021: £142.4m) is included above for the Group and £82.6m (2021: £113.5m) for the University as at 31 July 2022.

Notes to the accounts for the year ended 31 July 2022 (continued)

29. Creditors: amounts falling due after more than one year

	Group 2022 £m	Group 2021 £m	University 2022 £m	University 2021 £m
Bond liabilities – unsecured 2052 (fixed interest)	343.1	343.0	343.1	343.0
Bond liabilities – unsecured 2078 (fixed interest)	297.8	297.8	297.8	297.8
Bond liabilities – unsecured 2068 (index-linked, amortising from 2028)	281.8	464.0	281.8	464.0
Secured CUEF borrowings	40.4	–	40.4	–
Finance leases	1.0	1.0	1.0	1.0
Accruals and deferred income	19.7	19.5	6.1	9.3
	983.8	1,125.3	970.2	1,115.1

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 2022 the Indexed bonds were revalued downwards to £281.8m (2021: £464.0m) based on an average price of three independent valuations, decreasing the liability and resulting in a fair value adjustment credit through finance costs of £182.2m (2021: charge of £17.0m).

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

The secured CUEF borrowings are held in the Investment property Special Purpose Vehicle (SPV) described in Note 23a. The loan carries interest at a fixed rate of 2.98%, being the seven-year UK Government Gilt rate at inception of 1.48%, plus 1.5%. Interest is paid quarterly in arrears on 30 January, 30 April, 30 July, and 30 October. The capital is repayable on 30 April 2029.

The movement in net debt is disclosed in Note 42.

Notes to the accounts for the year ended 31 July 2022 (continued)

30. Pension liabilities

Group	CPS £m	Press & Assessment (UK schemes) £m	Defined benefit total £m	USS deficit recovery £m	Other £m	Total 2022 £m	Total 2021 £m
Group							
Opening balance	807.7	108.1	915.8	184.9	(1.6)	1,099.1	1,103.7
Movement in year:							
Current service cost	44.9	1.2	46.1	–	7.2	53.3	51.4
Past service cost	–	–	–	–	–	–	–
Contributions	(28.4)	(4.2)	(32.6)	–	(7.1)	(39.7)	(40.2)
Administration expenses	1.2	–	1.2	–	0.2	1.4	1.2
Interest on liability	12.6	1.7	14.3	1.6	–	15.9	14.3
Currency adjustments	–	–	–	–	(0.4)	(0.4)	–
Net change in underlying assumptions (see Note 14):							
– change in underlying assumptions	–	–	–	260.8	–	260.8	6.1
– USS deficit contributions payable	–	–	–	(10.0)	–	(10.0)	(8.5)
Liability on acquisition	–	–	–	250.8	–	250.8	(2.4)
Actuarial (gain) / loss	(549.8)	(40.2)	(590.0)	–	0.5	(589.5)	(28.9)
Closing balance at 31 July	288.2	66.6	354.8	437.3	(1.2)	790.9	1,099.1
University							
Opening balance	807.7	108.1	915.8	178.7	(2.6)	1,091.9	1,096.1
Movement in year:							
Current service cost	44.9	1.2	46.1	–	7.0	53.1	51.2
Past service cost	–	–	–	–	–	–	–
Contributions	(28.4)	(4.2)	(32.6)	–	(7.0)	(39.6)	(40.0)
Administration expenses	1.2	–	1.2	–	0.2	1.4	1.2
Interest on liability	12.6	1.7	14.3	1.6	(0.1)	15.8	14.3
Currency adjustments	–	–	–	–	(0.3)	(0.3)	0.1
Net change in underlying assumptions (see Note 14):							
– change in underlying assumptions	–	–	–	253.3	–	253.3	6.3
– USS deficit contributions payable	–	–	–	(9.9)	–	(9.9)	(8.2)
Actuarial (gain) / loss	(549.8)	(40.2)	(590.0)	–	0.6	(589.4)	(29.1)
Closing balance at 31 July	288.2	66.6	354.8	423.7	(2.2)	776.3	1,091.9

Notes to the accounts for the year ended 31 July 2022 (continued)

30. Pension liabilities continued

The net liabilities in respect of the Cambridge University Assistants' Contributory Pension Scheme (CPS) and the Press & Assessment 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 36.

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 36.

The Group also has a smaller number of staff in other pension schemes, including the defined benefit schemes relating to the Press & Assessment 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 deficit recovery provision, following the 2020 actuarial valuation of USS, has increased from £184.9m to £437.3m. The movements described as a 'net change in underlying assumptions' also include the impact of movements in discount rates. The resulting increase in provision of £250.8m (2021: decrease of £2.4m) is included in staff costs (see Note 14).

Please refer to Note 36 for actuarial assumptions and sensitivity analysis.

31. Other retirement benefits liabilities

Group and University	2022 £m	2021 £m
Opening balance	26.0	27.8
Movement attributable to the year:		
Current service cost less benefits paid	0.2	0.3
Contributions	(1.0)	(1.1)
Finance costs	0.4	0.5
Currency adjustments	0.6	(0.4)
Actuarial loss	(6.5)	(1.1)
Closing balance at 31 July	19.7	26.0

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

Notes to the accounts for the year ended 31 July 2022 (continued)

32. Endowment reserves

	Permanent £m	Expendable £m	2022 Total £m	2021 Total £m
Group				
Balance at 1 August	1,731.6	646.6	2,378.2	1,932.5
New endowments received	3.3	1.4	4.7	47.9
Transfers from restricted and unrestricted reserves	3.0	28.1	31.1	–
Investment expense	(1.1)	(0.4)	(1.5)	(2.2)
Expenditure	(44.7)	(21.8)	(66.5)	(60.8)
Valuation gains on investments	99.2	31.7	130.9	460.8
Balance at 31 July	1,791.3	685.6	2,476.9	2,378.2
Capital	1,531.1	609.3	2,140.4	2,091.2
Unspent income	260.2	76.3	336.5	287.0
Balance at 31 July	1,791.3	685.6	2,476.9	2,378.2
Representing:				
Trust and Special Funds:				
Professorships, Readerships, and Lectureships	875.0	96.4	971.4	944.8
Scholarships and bursaries	278.0	359.8	637.8	290.4
Other	594.1	229.1	823.2	768.2
Gates Cambridge Trust	–	0.3	0.3	332.7
Examination Board restricted funds	–	–	–	7.7
General endowments	44.2	–	44.2	34.4
Group total	1,791.3	685.6	2,476.9	2,378.2
University				
Balance at 1 August	1,718.3	312.5	2,030.8	1,647.6
New endowments received	2.8	1.4	4.2	43.6
Transfers to restricted and unrestricted reserves	3.0	28.1	31.1	–
Investment expense	(1.9)	(0.2)	(2.1)	(2.5)
Expenditure	(43.5)	(10.6)	(54.1)	(50.5)
Valuation gains on investments	99.2	13.9	113.1	392.6
Balance at 31 July	1,777.9	345.1	2,123.0	2,030.8
Capital	1,517.8	268.8	1,786.6	1,745.1
Unspent income	260.1	76.3	336.4	285.7
Balance at 31 July	1,777.9	345.1	2,123.0	2,030.8

Notes to the accounts for the year ended 31 July 2022 (continued)

33. Restricted reserves

	Unspent capital grants £m	Unspent research grants £m	Specific donations £m	Other restricted reserves £m	2022 Total £m	2021 Total £m
Group						
Balance at 1 August	8.6	47.6	94.5	31.7	182.4	153.5
Donations and grants recognised in the year	31.0	39.1	24.5	(0.3)	94.3	165.0
Investment income	–	–	–	0.1	0.1	(0.3)
Expenditure	0.8	(28.6)	(27.7)	0.1	(55.4)	(50.8)
Capital grants spent	(32.5)	–	–	–	(32.5)	(100.1)
Valuation gains on investments	0.2	–	2.1	1.6	3.9	15.1
Transfers from unrestricted income	–	–	–	(2.7)	(2.7)	–
Balance at 31 July	8.1	58.1	93.4	30.5	190.1	182.4
University						
Balance at 1 August	8.3	47.6	94.4	31.7	182.0	153.0
Donations and grants recognised in the year	31.0	39.1	11.6	–	81.7	154.4
Investment income	–	–	–	–	–	(0.1)
Expenditure	0.7	(28.7)	(14.9)	–	(42.9)	(40.3)
Capital grants spent	(32.5)	–	–	–	(32.5)	(100.1)
Valuation gains on investments	0.2	–	2.1	1.6	3.9	15.1
Transfers to unrestricted income	–	–	–	(2.7)	(2.7)	–
Balance at 31 July	7.7	58.0	93.2	30.6	189.5	182.0

34. 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 37). The movement in non-controlling interests in the statement of comprehensive income and unrestricted reserves of the Group were as follows:

	Group 2022 £m	Group 2021 £m
Opening balance at 1 August	5.5	3.2
Total comprehensive income attributable to non-controlling interests	5.0	2.5
Dividends paid to non-controlling interests	(3.7)	(0.2)
Closing balance at 31 July	6.8	5.5

For the year ended 31 July 2022, the surplus for the year attributable to non-controlling interests was £5.0m (2021: £2.5m), the total comprehensive income attributable to non-controlling interests was £5.0m (2021: £2.5m) and the unrestricted reserves attributable to non-controlling interests was £6.8m (2021: £5.5m).

Notes to the accounts for the year ended 31 July 2022 (continued)

35. Capital commitments

	Group 2022 £m	Group 2021 £m
Commitments for capital expenditure:		
Commitments contracted at 31 July	102.6	235.6
Authorised but not contracted at 31 July	127.8	66.5
	230.4	302.1
Commitments for capital calls on investments	683.8	584.3

Commitments for capital expenditure will be funded from existing reserves. There are no performance-related conditions attached to these commitments.

36. 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.

From 1 January 2013, the University has also operated an additional pension scheme for University staff, the Cambridge University Assistants' Defined Contribution Pension Scheme (CUADCPS) which is a defined contribution pension scheme. For reporting purposes, the contributions payable through the scheme are included in 'other' pension scheme costs in the statement of comprehensive income. This scheme does not form part of the liability disclosed under CPS in this Note.

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. The assets of the scheme are held in a separate trustee-administered fund. 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, with related expenses being recognised through the statement of comprehensive income.

The total cost charged to the statement of comprehensive income is £378.5m (2021: £122.1m). Deficit recovery contributions due within one year for the institution are £27.5m (2021: £23.1m).

The latest available complete actuarial valuation of the Retirement Income Builder is as at 31 March 2020 (the valuation date), and was carried out using the projected unit method.

Since the institution cannot identify its share of USS Retirement Income Builder (defined benefit) assets and liabilities, the following disclosures reflect those relevant for those assets and liabilities as a whole.

The 2020 valuation was the sixth valuation for the scheme under the scheme-specific funding regime introduced by the Pensions Act 2004, which requires schemes to have sufficient and appropriate assets to cover their technical provisions. At the valuation date, the value of the assets of the scheme was £66.5 billion and the value of the scheme's technical provisions was £80.6 billion indicating a shortfall of £14.1 billion and a funding ratio of 83%.

Notes to the accounts for the year ended 31 July 2022 (continued)

36. Pension schemes continued

The key financial assumptions used in the 2020 valuation are described below. More detail is set out in the Statement of Funding Principles.

CPI	Term dependent rates in line with the difference between the Fixed Interest and Index Linked yield curves less: 1.1% p.a. to 2030, reducing linearly by 0.1% p.a. to a long-term difference of 0.1% p.a. from 2040
Pension increases (subject to a floor of 0%)	CPI assumption plus 0.05%
Discount rate (forward rates)	Fixed interest gilt yield curve plus: Pre-retirement: 2.75% p.a. Post retirement: 1.00% 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 2020 actuarial valuation. The mortality assumptions used in these figures are as follows:

Mortality base table	101% of S2PMA 'light' for males and 95% of S3PFA for females
Future improvements to mortality	CMI 2019 with a smoothing parameter of 7.5, an initial addition of 0.5% p.a. and a long-term improvement rate of 1.8% p.a. for males and 1.6% p.a. for females

The current life expectancies on retirement at age 65 are:

	2022	2021
Males currently aged 65 (years)	23.9	24.6
Females currently aged 65 (years)	25.5	26.1
Males currently aged 45 (years)	25.9	26.6
Females currently aged 45 (years)	27.3	27.9

A new deficit recovery plan was put in place as part of the 2020 valuation, which requires payment of 6.2% of salaries over the period 1 April 2022 until 31 March 2024, at which point the rate will increase to 6.3%. The 2022 deficit recovery liability reflects this plan. The liability figures have been produced using the following assumptions.

	2022	2021
Discount rate	3.33%	0.89%
Pensionable salary growth	3.0% – 5.0%	1.0% – 5.0%

Subsequent to finalisation of the 2020 scheme valuation noted above, USS Trustees have continued to undertake monitoring activities, and to issue interim monitoring reports. The most recent monitoring reports have indicated an estimated net asset / liability position of a deficit/shortfall of £1.6bn at 31 March 2022 and a surplus of £1.8bn at 30 June 2022. These are both significant improvements from the deficit position at 31 March 2020 and do show a degree of volatility in the position. These monitoring reports do not constitute a formal scheme valuation and are therefore not considered when calculating the deficit recovery provision disclosed in the financial statements which has to reflect the contributions determined at the last published formal funding valuation. In the event that future formal valuations indicate an improved shortfall/surplus position compared to the 2020 scheme valuation, it would be expected that the deficit recovery provision disclosed in Note 30 would be partially or fully derecognised.

Notes to the accounts for the year ended 31 July 2022 (continued)

36. Pension schemes continued

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 as at 31 July 2021. The results of valuation showed the actuarial value of the scheme's assets as £814m. These were sufficient to cover the scheme's past service liabilities of £738m; the scheme had a surplus of £76m and was 110% 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. On 1 August 2023, employer contributions will be adjusted to 14.1% of pensionable pay for existing members at 31 December 2012 and 7.6% of pensionable pay (together with contributions at 5% 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 2023. These payments are subject to review at the next triennial valuation due as at 31 July 2024.

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 triennial actuarial valuation as at 31 July 2021, 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).

The principal assumptions used by the actuary were:

	2022	2021
Discount rate	3.40%	1.55%
Rate of increase in salaries *	3.00%	3.35%
Rate of increase in pensions in deferment	3.00%	3.35%
Rate of increase in pensions in payment:		
– to 31 December 2012	3.00%	3.35%
– from 1 January 2013 (RPI max 5.0% p.a)	2.95%	3.25%
Mortality - equivalent life expectancy for members reaching the age of 65:		
Males currently aged 65	87	87
Males currently aged 45	89	88
Females currently aged 65	90	90
Females currently aged 45	91	91

* Long term rate shown in the table above. In the short term, rates of 4.5% in 2022–23 and 2023–24, and 3.5% in 2024–25, have been assumed.

Notes to the accounts for the year ended 31 July 2022 (continued)

36. Pension schemes continued

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	
	2022 £m	2021 £m	2022 £m	2021 £m	2022 £m	2021 £m
Opening	(1,622.7)	(1,466.5)	815.0	689.5	(807.7)	(777.0)
Current service cost	(44.9)	(42.8)	–	–	(44.9)	(42.8)
Administrative expenses paid	–	–	(1.2)	(1.0)	(1.2)	(1.0)
Employer contributions	–	–	28.4	28.6	28.4	28.6
Contributions by members	(0.3)	(0.3)	0.3	0.3	–	–
Benefits paid	27.7	25.7	(27.7)	(25.7)	–	–
Interest (expense) / income	(25.3)	(20.7)	12.7	9.7	(12.6)	(11.0)
Remeasurement gains / (losses):						
Actuarial gains / (losses)	561.8	(118.1)	–	–	561.8	(118.1)
Expected less actual plan expenses	–	–	(0.6)	(0.3)	(0.6)	(0.3)
Return on assets excluding interest	–	–	(11.4)	113.9	(11.4)	113.9
Closing defined benefit obligation	(1,103.7)	(1,622.7)	815.5	815.0	(288.2)	(807.7)

The movement for the year in the net pension liability is reflected in Note 30.

The total cost recognised in expenditure was:

	2022 £m	2021 £m
Current service cost	44.9	42.8
Past service cost	–	–
Administrative expenses	1.0	1.0
Interest cost	12.7	11.0
	58.6	54.8

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

	2022	2021
Equities and hedge funds	64.6%	66.7%
Bonds and cash	25.1%	24.5%
Property	10.3%	8.8%
	100.0%	100.0%

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

	2022	2021
Interest income	12.6	9.7
Return on assets excluding interest income	(11.4)	113.9
	1.2	123.6

Notes to the accounts for the year ended 31 July 2022 (continued)

36. Pension schemes continued

The Press & Assessment 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 2019. The next triennial valuation will be performed as at 1 January 2022 with funding policy and contribution levels to be reviewed accordingly.

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 2019 valuation to 31 July 2022 for the purposes of these financial statements. The principal assumptions used by the actuary for the schemes were:

	2022	2021
Discount rate	3.40%	1.55%
Rate of increase in salaries - schemes are now on frozen current salary basis	0.0%–3.3%	0.00%
Rate of increase in pensions in deferment	3.75%–3.8%	3.80%
Rate of increase in pensions in payment	3.73%–3.8%	3.80%
Mortality - equivalent life expectancy for members at age 60:		
Males	87–89	87–89
Females	89	89

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	
	2022 £m	2021 £m	2022 £m	2021 £m	2022 £m	2021 £m
Opening	(379.1)	(377.5)	271.0	237.4	(108.1)	(140.1)
Current service cost	(1.3)	(1.4)	–	–	(1.3)	(1.4)
Employer contributions	–	–	4.2	4.4	4.2	4.4
Contributions by members	(0.1)	(0.1)	0.1	0.1	–	–
Benefits paid	13.1	12.7	(13.1)	(12.7)	–	–
Interest income / (expense)	(5.8)	(5.2)	4.1	3.3	(1.7)	(1.9)
Remeasurement gains:						
Actuarial gains	56.1	(7.6)	(16.0)	38.5	40.1	30.9
Closing defined benefit obligation	(317.1)	(379.1)	250.3	271.0	(66.8)	(108.1)

The movement for the year in the net pension liability is reflected in Note 30. The above table excludes the US pension schemes net pension assets relating to the Press & Assessment's US Defined Benefit Plans of £1.4m (2021: £1.8m). The US schemes are included in the other pensions disclosure in Note 30.

The total cost recognised in expenditure was:

	2022 £m	2021 £m
Current service cost	1.3	1.4
Interest cost	1.7	1.9
	3.0	3.3

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

	2022	2021
Equities	42.5%	50.2%
Property	3.0%	3.2%
Cash and annuities	6.2%	4.0%
Diversified growth fund	20.1%	20.4%
Diversified credit fund	23.7%	17.8%
Corporate Bonds	4.5%	4.4%
	100.0%	100.0%

The return on the scheme's assets was:

	2022	2021
Interest Income (£m)	4.1	3.3

Notes to the accounts for the year ended 31 July 2022 (continued)

36. Pension schemes continued

The University also has a number of staff in other pension schemes, including the National Health Service Pension Scheme (NHSPS), the Local Government Pension Scheme (LGPS) and the Cambridge University Assistants' Defined Contribution Pension Scheme. These pension schemes are amalgamated in the other pensions disclosure in Note 30. No further disclosures are provided as the balances are not material.

The total Group pension cost included in staff costs for the year (see Note 14) was:

	Employer	Provisions	Total	Employer	Provisions	Total
	contributions	(Note 30)		contributions	(Note 30)	
	2022	2022		2021	2021	
	£m	£m	£m	£m	£m	£m
USS	127.7	250.8	378.5	124.5	(2.4)	122.1
CPS	28.2	17.7	45.9	20.9	15.2	36.1
PCPF	1.5	(0.8)	0.7	1.7	(0.8)	0.9
PSSPS	2.2	(2.2)	–	2.3	(2.2)	0.1
NHSPS	2.9	–	2.9	2.6	–	2.6
Other pension schemes	12.0	0.3	12.3	18.7	0.2	18.9
	174.5	265.8	440.3	170.7	10.0	180.7

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 and CPS scheme valuation, representing 92% of total pension net liabilities, are set out below:

Change in assumptions at 31 July 2022	Approximate impact
USS deficit provision	
(a) Impact of a 0.5% p.a. decrease in discount rate	Liability increases by £19m
(b) Impact of a 0.5% p.a. increase in salary inflation over duration	Liability increases by £19m
(c) Impact of a 0.5% p.a. increase in salary inflation year one only	Liability increases by £2m
(d) Impact of a 0.5% increase in staff changes over duration	Liability increases by £19m
(e) Impact of a 0.5% increase in staff changes year one only	Liability increases by £2m
(f) Impact of a 0.5% increase in deficit contributions from April 2024	Liability increases by £31m
(g) One year increase in term	Liability increases by £28m
CPS scheme valuation	
(a) Impact of a 1.0% p.a. increase in discount rate	Liability decreases by £185m
(d) Impact of a 1.0% p.a. increase in inflation rate	Liability increases by £227m
(c) Life expectancy increased by one year	Liability increases by £35m

Notes to the accounts for the year ended 31 July 2022 (continued)

37. Principal subsidiary and associated undertakings and other significant investments

The following undertakings were subsidiary and associated undertakings during the year ended 31 July 2022. 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 Engage Limited (formerly IFM Education and Consultancy Services Limited)		Consultancy and commercial exploitation of intellectual property
Cambridge Investment Limited		Land development
University of Cambridge Investment Management Limited (previously 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		Management and maintenance of the North West Cambridge estate
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, ai	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
Light Blue Fibre Limited	aj	Other telecommunication services
Cambridge& Ltd		Promotion of eco-friendly ventures in Cambridge
University of Cambridge Research Services Europe Limited	ak	Research and development
Northdown Real Estate Limited Partnership Northdown (General Partner) Limited Northdown Real Estate (Nominee) Limited	au	Property development and investment
Wood Mews Partners LLP	au	Property development and investment

Notes to the accounts for the year ended 31 July 2022 (continued)

37. Principal subsidiary and associated undertakings and other significant investments continued

Name	Notes	Principal activity
Associated Trusts	e	Provision of scholarships, grants and other support for the education of UK and overseas students in the University
Cambridge Commonwealth, European and International Trust		
Gates Cambridge Trust		
Cambridge University Press & Assessment subsidiary undertakings	x	
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
OET Global (Aus)	v	Examination services
OET USA LLC	w	Examination services
Cambridge Daigaku Shuppan KK	y	Sales support office for the Japanese market
Cambridge Knowledge (China) Limited	z	Sales support office for the Chinese market
Cambridge University Press (Greece) MEPE	aa	Sales support office for the Greek, Cypriot and Mediterranean market
Cambridge University Press (Holdings) Limited		Multi-activity holding company
Cambridge University Press & Assessment India Private Limited (formerly Cambridge University Press India Private Limited)	o	Academic and educational book publisher and distributor for India
Cambridge University Press Nigeria Limited	ab	Educational book publisher and distributor for Nigeria
Cambridge University Press Operations Limited		Publishing services company
Cambridge University Press Satış ve Dağıtım Ticaret Limited Şirketi	ac	Non-trading
Cambridge University Press Turkey Satış Destek Limited Sirketi	ac	Sales support office for the Turkish market
Cambridge University Press South Africa Proprietary Limited	ad	Academic and educational book publisher and distributor for South Africa
Cambridge Learning Limited		Non-trading
Editorial Edicambridge Cia Ltda	ae	Sales support office for the Ecuadorian market
Digital Services Cambridge Limited		Software development, infrastructure and business services
ELT Trading SA de CV	af	Distribution company (Mexico and Latin America)
HOTmaths Pty Limited	ag	Development and commercialisation of web-based maths digital learning management systems

Notes to the accounts for the year ended 31 July 2022 (continued)

37. Principal subsidiary and associated undertakings and other significant investments continued

Name	Notes	Principal activity
Oncoweb Limited		Non-trading intermediate holding company
Cambridge-Obeikan Company Limited	ah	Academic and educational book distributor
Cogbooks Limited		Provision of software for education and training
Cogbooks India Private Limited	al	Provision of technical support services to Cogbooks Limited
Cogbooks Limited Corporation	am	Non-trading
Cogbooks Inc.	an	Non-trading
Cambridge University Press Egypt LLC	ao	Sales support office for the Egypt market
Cambridge University Press Vietnam Company Limited	ap	Sales support office for the Vietnam market
Cambridge University Press Pakistan (Private) Limited	aq	Sales support office for the Pakistan market
Cambridge University Press - Qatar LLC	ar	Sales support office for the Qatar market
Cambridge University Press Singapore Private Limited	as	Sales support office for the Singapore market
Cambridge University Press Malaysia Sendirian Berhad	at	Sales support office for the Malaysian market

- 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 University Press & Assessment.
- g English Language iTutoring Limited is a limited company registered in England and Wales, in which the University has a 100% interest acting through Cambridge University Press & Assessment.
- 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) and Cambridge Boxhill Language 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 & Assessment 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. The effect of the accounting reference date is not material to the consolidated accounts.
- 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 OET Global Aus is incorporated in Australia.
- w OET USA LLC is incorporated in the United States of America.
- x A number of Cambridge University Press & Assessment subsidiary undertakings formerly had an accounting reference date of 30 April for commercial reasons, with the exception of the companies incorporated in India (31 March), Australia (30 June) and Mexico, Ecuador, China, Greece and Saudi Arabia (31 December).
- y Cambridge Daigaku Shuppan KK is incorporated in Japan.
- z Cambridge Knowledge (China) Limited is incorporated in Hong Kong.

Notes to the accounts for the year ended 31 July 2022 (continued)

37. Principal subsidiary and associated undertakings and other significant investments continued

- aa Cambridge University Press (Greece) MEPE is incorporated in Greece.
- ab Cambridge University Press Nigeria Limited is incorporated in Nigeria.
- ac Cambridge University Press Satış ve Dağıtım Ticaret Limited Şirketi and Cambridge University Press Turkey Satis Destek Limited Sirket are incorporated in Turkey.
- ad Cambridge University Press South Africa Proprietary Limited is a 75% subsidiary incorporated in South Africa.
- ae Editorial Edicambridge Cia Ltda is incorporated in Ecuador.
- af ELT Trading SA de CV is incorporated in Mexico.
- ag HOTmaths Pty Limited is a 65% subsidiary incorporated in Australia.
- ah Cambridge-Obeikan Company Limited is incorporated in Saudi Arabia.
- ai Foundation for Genomics and Population Health has an accounting reference date of 31 March. The effect of this is not material to the consolidated accounts.
- aj Joint venture arrangement between the University and Cambridgeshire County Council, with the University holding a 50% interest in the company which is limited by shares and registered in England and Wales.
- ak University of Cambridge Research Services Europe Limited is incorporated in the Republic of Ireland.
- al Cogbooks India Private Limited is incorporated in India and has an accounting reference date of 31 March.
- am Cogbooks Limited Corporation is incorporated in the United States of America and has an accounting reference date of 31 December.
- an Cogbooks Inc. is incorporated in the United States of America.
- ao Cambridge University Press Egypt LLC is incorporated in Egypt.
- ap Cambridge University Press Vietnam Company Limited is incorporated in Vietnam
- aq Cambridge University Press Pakistan (Private) Limited is incorporated in Pakistan and has an accounting reference date of 30 June.
- ar Cambridge University Press - Qatar LLC is incorporated in Qatar.
- as Cambridge University Press Singapore Private Limited is incorporated in Singapore.
- at Cambridge University Press Malaysia Sendirian Berhad is incorporated Malaysia.
- au Northdown Real Estate Limited Partnership, Northdown (General Partner) Limited, Northdown Real Estate (Nominee) Limited and Wood Mews Partners LLP have an accounting reference date of 30 June. The effect of this is not material to the consolidated accounts.

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 23). 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
Cambridge Flow Solutions	22	Commercial exploitation of intellectual property
NoBACZ Healthcare	22	Commercial exploitation of intellectual property

In addition, at the year end the University held an interest of 28.59% (2021: 30.32%) in Cambridge Innovation Capital Limited (formerly 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. As Cambridge Innovation Capital Limited is an investment entity the Group's carrying value is based on its share of the entity's net assets.

Notes to the accounts for the year ended 31 July 2022 (continued)

38. 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 of key management personnel (see Note 14) 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 39 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 2022 includes £8.8m in respect of continuing grants funded by Gatsby of which £1.0m was included in debtors and a further £7.7m of deferred income was included in creditors at the year end.

Cambridge Students' Union (including Cambridge Graduate Union)

The President of the Cambridge Students' Union was also a member of the University's Council for the 2021–22 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 2022, provided a grant of £768,000 and made other payments totalling £24,000 for services provided, of which £18,000 was included in creditors at the year end.

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). In 2021–22 the University received payments from the OIS amounting to £1,748,000 relating to contributions to the Vice-Chancellor's Fund and the Cambridge Admissions Office and £3,795,000 for other services, of which £116,000 was included in debtors at the year end. In addition, services were provided to the University by the OIS during the 2021–22 financial year amounting to £267,000.

Corpus Conferences Ltd

A member of the University's Council was also a Director of Corpus Conferences Ltd during 2021–22 which provides event catering services on behalf of Corpus Christi College. The University made payments to the company for conference-related services amounting to £61,000 during the 2021–22 financial year and £24,000 was included in creditors at year end.

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 the Royal Papworth Hospital NHS Foundation Trust. A member of the University's Council and a member of the Registry team serving on the University's Council were Directors of CUHP during 2021–22. The University provided services to CUHP amounting to £7,000 during the year and £3,000 was included in debtors at year end.

Notes to the accounts for the year ended 31 July 2022 (continued)

38. Related party transactions *continued*

University of Southampton

A member of the University's Council was a member of the Council of the University of Southampton (UoS) during 2021–22. The University received research funding from the UoS of £397,000 during the financial year of which £162,000 was included in debtors. In addition, the University provided services to the UoS amounting to £56,000 during the year.

Network Rail Limited

A member of the University's Council was a Non-Executive Director of Network Rail during 2021–22. During the year the University provided other services to Network Rail amounting to £452,000, none of which was included in debtors at year end.

Cambridge University Musical Society

A member of the University's Council was Chairman of Cambridge University Musical Society during 2021–22. During the year, the University provided services to the society amounting to £13,000, of which £4,000 was in debtors at year end. The society also provided services to the University amounting to £1,000 during the year.

39. 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 £84.7m (2021: £80.4m) 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 15.

The University distributed third party donations to the Colleges totalling £14.6m (2021: £8.7m); 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 £6.3m (2021: £5.1m), and the Colleges provided accommodation, catering and other services to the University for which the University paid a total of £4.9m (2021: £4.1m). During the year the Colleges made donations to the University totalling £6.1m (2021: £5.1m).

Current asset investments include £314.6m (2021: £252.8m) held on behalf of 13 (2021: 13) Colleges in the form of CUEF units and deposits (see Note 26), £7.5m (2021: £7.3m) held on behalf of the Isaac Newton Trust in CUEF units and £6.4m (2021: £5.5m) held on behalf of other associated bodies in CUEF, deposits and cash and cash equivalents.

Other debtors includes £14.7m (2021: £4.1m) receivable from Colleges. Other Creditors includes £9.6m (2021: £9.1m) payable to Colleges.

Colleges Fund

	2022 £m	2021 £m
Balance at 1 August	–	–
Contributions received from Colleges	5.3	5.1
Interest earned	–	–
Payments to Colleges	(5.3)	(5.1)
Balance at 31 July (included in creditors)	–	–

The Colleges Fund is administered by the University on behalf of the Colleges, who 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.

Notes to the accounts for the year ended 31 July 2022 (continued)

40. 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 12), 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 a 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 University 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:

	2022 £m	2021 £m
Investment cash balances	9.8	65.6
Trade debtors: invoices receivable	171.1	200.0
Research grants recoverable	119.8	118.0
Other debtors	132.8	117.0
Money market investments	875.6	1,093.4
Cash at bank	193.6	167.6
Total financial assets exposed to credit risk	1,502.7	1,761.6

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	322.2	344.7
Less: Provision for impairment of receivables	(31.3)	(26.7)
	290.9	318.0

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 2022, trade and research grant debtors with a carrying value of £50.6m (2021: £71.5m) were past their due date but not impaired.

	2022 £m	2021 £m
Balances against which a provision has been made	30.3	26.7
Uninvoiced research grants recoverable	76.2	71.8
Balances not past their due date	165.1	174.6
Up to 3 months past due	33.8	44.0
3 to 6 months past due	10.4	19.7
Over 6 months past due	6.4	7.9
	322.2	344.7

Movement on provision for impairment of receivables

	Trade Debtors		Research Debtors		Total	
	2022 £m	2021 £m	2022 £m	2021 £m	2022 £m	2021 £m
Opening balance	10.2	8.9	16.5	11.2	26.7	20.1
Provided in year	1.0	2.0	4.1	12.1	5.1	14.1
Balances written off	(0.6)	(0.7)	–	(6.8)	(0.6)	(7.5)
Closing balance at 31 July	10.6	10.2	20.6	16.5	31.2	26.7

Notes to the accounts for the year ended 31 July 2022 (continued)

40. Financial risk management continued

(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 cash, term deposits and other liquid investments at 31 July were as follows:

Fitch credit quality rating (short / long term)	2022 £m	2021 £m
AAF/S2	294.7	300.5
F1+ / AA Highest / Very High	–	–
F1+ / AA - Highest / Very High	195.5	203.0
F1 / A+ Highest / High	311.0	444.2
F1 / A Highest / High	142.4	159.9
F1 / A - Highest / High	42.4	48.5
F2 / A - Good / High	77.2	98.0
F2 / BBB+ Good / Good	1.7	0.6
F3 / BBB Fair / Good	1.0	0.1
Lower ratings	3.3	6.2
	1,069.2	1,261.0

Notes to the accounts for the year ended 31 July 2022 (continued)

40. Financial risk management continued

(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

Public equities, which are readily realisable, remain the largest single asset class held by the CUEF and liquidity is carefully monitored using a comprehensive set of liquidity limits. 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 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.

During the year, the CUEF established two revolving credit facilities of £200m and US\$150m, with certain investments of the CUEF provided as collateral for the facilities. The facilities are intended to facilitate transactional liquidity, for the efficient implementation of tactical or strategic asset allocation and to enable CUEF to manage liquidity for distributions and redemptions in the ordinary course of business. The facilities are not permanent leverage. As at 31 July 2022 £ Nil was outstanding on the credit facilities.

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

	Three months or less £m	Between three months and one year (restated*) £m	Between one and five years £m	More than five years £m	Total (restated*) £m
As at 31 July 2022:					
Bond liabilities	6.6	14.4	83.8	2,135.5	2,240.3
Secured CUEF borrowings	–	–	–	40.4	40.4
Derivative financial instruments liability positions	0.4	43.0	–	–	43.4
Investments held on behalf of others	–	327.6	–	–	327.6
Finance leases	–	0.2	0.2	0.7	1.1
Other creditors excluding deferred income	255.4	110.4	21.2	0.2	387.2
Totals at 31 July 2022	262.4	495.6	105.2	2,176.8	3,040.0
As at 31 July 2021:					
Bond liabilities	6.6	14.4	83.8	2,345.0	2,449.8
Derivative financial instruments liability positions	0.1	5.3	–	–	5.4
Investments held on behalf of others	3.7	262.5	–	–	266.2
Bank overdraft	4.7	0.1	–	–	4.8
Finance leases	–	0.2	0.2	0.8	1.2
Other creditors excluding deferred income	197.8	110.0	13.8	(0.8)	320.8
Totals at 31 July 2021	212.9	392.5	97.8	2,345.0	3,048.2

* Refer to Note 43 on page 567 for details of the restatement.

Capital commitments, excluded from the above analysis, are disclosed in Note 35.

Notes to the accounts for the year ended 31 July 2022 (continued)

40. Financial risk management continued

(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. An asset allocation paper is presented annually to the Investment Board and the latest position on asset allocations is disclosed in the quarterly Investment Board and investor reporting. 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:

	2022	2021
Pounds Sterling	60.5%	56.9%
US Dollar	33.8%	37.3%
Euro	2.4%	2.2%
Japanese Yen	1.5%	1.2%
Other currency	1.8%	2.4%
	100.0%	100.0%

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 2022:

	US Dollar \$m	Euro €m	US Dollar £m	Euro £m	Other £m	Total £m
CUEF investment assets excluding currency contracts	2,957.1	324.5	2,430.0	271.9	196.1	2,898.0
CUEF forward currency contracts	(1,311.1)	(209.4)	(1,077.4)	(175.4)	(63.5)	(1,316.3)
Net exposure of CUEF	1,646.0	115.1	1,352.6	96.5	132.6	1,581.7
Exposures outside CUEF:						
Debtors	71.4	35.5	58.7	29.2	27.8	115.7
Cash balances	26.3	6.8	21.6	5.6	82.5	109.7
Creditors including bank and other loans	(23.6)	(12.4)	(19.4)	(10.2)	(39.8)	(69.4)
Forward currency contracts	(0.7)	–	(0.6)	–	–	(0.6)
Net exposure	1,719.4	145.0	1,412.9	121.1	203.1	1,737.1

The impact on total recognised gains for the year 2021–22 of additional 10% variations in the principal exchange rates would have been:

10% US Dollar appreciation	141.3
10% Euro appreciation	12.1

Notes to the accounts for the year ended 31 July 2022 (continued)

40. Financial risk management continued

The following table summarises the significant assets and liabilities exposed to currency risk as at 31 July 2021:

	US Dollar \$m	Euro €m	US Dollar £m	Euro £m	Other £m	Total £m
CUEF investment assets excluding currency contracts	2,878.6	263.8	2,070.4	225.0	202.1	2,497.5
CUEF forward currency contracts	(910.0)	(164.6)	(654.5)	(140.4)	(66.9)	(861.8)
Net exposure of CUEF	1,968.6	99.2	1,415.9	84.6	135.2	1,635.7
Exposures outside CUEF:						
Debtors	64.2	33.2	46.2	28.3	29.6	104.1
Cash balances	30.4	9.8	21.9	8.4	44.9	75.2
Creditors including bank and other loans	(25.9)	(9.4)	(18.6)	(8.0)	(25.0)	(51.6)
Forward currency contracts	(22.7)	(9.4)	(16.3)	(8.0)	–	(24.3)
Net exposure	2,014.6	123.4	1,449.1	105.3	184.7	1,739.1

The impact on total recognised gains for the year 2020–21 of additional 10% variations in the principal exchange rates would have been:

10% US Dollar appreciation	144.9
10% Euro appreciation	10.5

Risk management policies and procedures

Currency exposures are managed in accordance with the current hedging policy which has been reviewed and approved by the Cambridge Investment Management Limited board and the Investment Board.

(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 (i.e. for fixed interest rate assets or liabilities) or that future cash flows will fluctuate due to changes in interest rates (i.e. 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 directly invested in variable rate deposits or interest-bearing securities however it does hold investments in various fixed income instruments through its investment fund managers. The CUEF held a fixed interest investment in US Treasury notes amounting to £29.6m at 31 July 2022 (2021: £58.7m).

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 2022 the University did not directly hold any corporate and overseas government bonds with fixed interest.

Risk management policies and procedures

University of Cambridge Investment Management Limited (the Investment manager of the CUEF) 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.

Notes to the accounts for the year ended 31 July 2022 (continued)

40. Financial risk management continued

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 12.

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.

41. 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 £640.9m (2021: £640.8m, see Note 29) whereas the fair value of the fixed interest bond liabilities at 31 July 2022 was £640.0m (2021: £1,022.9m) based on independent valuations.

The Indexed bond liabilities are measured at fair value at the balance sheet date based on an independent valuations. The University sought three estimates from independent institutions to value these Bonds. As the bond operates in a highly illiquid market, valuation of these bonds relies on an estimation of the offer price. CPI-linked bond is valued with reference to the market yield on an equivalent duration gilt, adjusting for various spread factors associated with the unique Cambridge bond. Given the lack of direct market data, high degree of estimation, the price range (below) shows a large range, particularly in the more subjective areas of the spread. The estimate from three different institutions has indicated a sensitivity of approximately 9% (2021: 15%) of the value with (a range of £25.0m (2021: £69.6m)) between the highest and lowest valuation. An average price has been used for valuation purposes.

The fair value measurements of all the bond liabilities are categorised as Level 2 using the definitions as noted below.

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

Fair value measurements

The following tables categorise the fair values of the Group's investment assets 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.

Notes to the accounts for the year ended 31 July 2022 (continued)

41. Fair value continued

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

	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Investment assets at fair value at 31 July 2022:				
CUEF: Quoted investments	322.2	–	–	322.2
Unquoted investments	1121.3	1,277.9	1,346.5	3,745.7
Derivative financial instruments	–	6.0	–	6.0
Cash in hand and at investment managers	9.8	–	–	9.8
Total CUEF assets	1,453.3	1,283.9	1,346.5	4,083.7
Secured borrowings	(40.4)	–	–	(40.4)
Derivative financial liabilities	–	(42.8)	–	(42.8)
Net CUEF assets / (liabilities)	1,412.9	1,241.1	1,346.5	4,000.5
CMAF units	244.7	–	–	244.7
Other quoted investments	10.9	–	–	10.9
Other unquoted investments	–	11.2	192.0	203.2
Investment properties	–	562.3	–	562.3
Money market and other liquid current asset investments	515.9	–	–	515.9
Total investment assets at fair value at 31 July 2022	2,184.4	1,814.6	1,538.5	5,537.5

	Level 1 (restated*) £m	Level 2 (restated*) £m	Level 3 £m	Total (restated*) £m
Investment assets at fair value at 31 July 2021:				
CUEF: Quoted investments	455.2	–	–	455.2
Unquoted investments	1,356.7	884.8	1,041.2	3,282.7
Derivative financial instruments	–	1.0	–	1.0
Cash in hand and at investment managers	65.6	–	–	65.6
Total CUEF net assets	1,877.5	885.8	1,041.2	3,804.5
Derivative financial liabilities	–	(5.2)	–	(5.2)
Net CUEF assets	1,877.5	880.6	1,041.2	3,799.3
Other quoted investments	41.2	–	–	41.2
Other unquoted investments	1.2	13.2	125.4	139.8
Investment properties	–	589.9	–	589.9
Money market and other liquid current asset investments	616.8	–	–	616.8
Total investment assets at fair value at 31 July 2021	2,536.7	1,483.7	1,166.6	5,187.0

* Refer to Note 43 on page 567 for details of the restatement.

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

	2022 £m	2021 £m
Fair value at 1 August	1,166.6	1,043.4
Purchases less sales proceeds	22.2	45.1
Total gains	323.1	228.9
Transfers in / (out) of Level 3	26.6	(150.8)
Fair value at 31 July	1,538.5	1,166.6

* Refer to Note 43 on page 567 for details of the restatement.

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 level assigned to the underlying assets as disclosed by the fund in their latest financial statements. Where multiple levels are split across the asset class, the fair value measurement is categorised in its entirety on the basis of the lowest level input that is significant (>15%) to the fair value measurement in its entirety. Transfers into and out of Level 3 occur when the classification of the underlying assets and liabilities of these funds changes.

Notes to the accounts for the year ended 31 July 2022 (continued)

42. Reconciliation of Net Cash / (Debt)

An analysis of the movement in net cash/(debt) for the year ended 31 July 2022 is provided below:

	At 1 August 2021 (restated*) £m	Cash changes £m	Non-cash changes £m	At 31 July 2022 £m
Cash and cash equivalents (Note 27)	644.2	(86.1)	(4.8)	553.3
Money market and other liquid current asset investments (Note 26)	616.8	(95.2)	(5.7)	515.9
Debt due within one year (Note 28):				
– Bank overdraft	(4.8)	–	4.8	–
– Finance leases	(0.1)	–	–	(0.1)
Debt due after more than one year (Note 29):				
– Finance leases	(1.0)	–	–	(1.0)
– Secured CUEF borrowings	–	(40.4)	–	(40.4)
– Bond liabilities (unsecured 2052 fixed interest)	(343.0)	–	(0.1)	(343.1)
– Bond liabilities (unsecured 2078 fixed interest)	(297.8)	–	–	(297.8)
– Bond liabilities (unsecured 2068 index-linked, amortising from 2028)	(464.0)	–	182.2	(281.8)
Net cash	150.3	(221.7)	176.4	105.0

* Refer to Note 43 on page 567 for details of the restatement.

Net debt excludes cash and cash equivalents held within the CUEF but includes the Group's other liquid current asset investments that are excluded from cash and cash equivalents under FRS 102. Management's view is that this definition is representative of the Group's available liquid resources.

Net debt includes the non-cash fair value adjustment to revalue the CPI-linked bond at the balance sheet date. This represents a valuation of the liability at a point in time and is not necessarily reflective of the final repayment value on redemption of the bond. As such, management's view is that an adjusted net cash position (removing the cumulative effects of the fair value adjustment of (£14.9m) but including the accretion in the value of CPI-linked Bond of £25.1m) of £65.0m is more representative of the underlying borrowing position of the Group.

Notes to the accounts for the year ended 31 July 2022 (continued)

43. Prior year restatement

The Group and University has restated prior year comparatives as follows:

(1) Cash and cash equivalents

During the course of the year a review of the disclosure of cash and cash equivalents has been undertaken which identified certain misclassifications. Amounts are reclassified as current asset investments as a result of this review. The impact of the restatement on prior year comparatives is detailed below:

- (a) Money market investments of £178.4m have been reclassified due to the fixed term of the relevant deposits exceeding three months at inception. Previously, the Group had disclosed as cash and cash equivalents deposits where less than three months of the term remained at the balance sheet date; and
- (b) Short-term highly liquid investment funds of £300.4m have been reclassified as they do not meet the definition of a cash and cash equivalent in FRS 102 of being subject to insignificant risk of changes in value.

The prior year has been adjusted in the statement of financial position to decrease cash and cash equivalents and increase current asset investments by £478.8m, and in the statement of cash flows to decrease the net disposal of other current asset investments and the (reduction) / increase in cash and cash equivalents by £94.1m, and the cash and cash equivalents at the beginning of the year by £384.7m. The adjustment has no impact on the statement of comprehensive income or statement of changes in reserves.

(2) Non-current asset investments

During the course of the year, a review of the presentation of the CUEF has been undertaken to present the assets and liabilities of the consolidated position of the CUEF on a gross basis, to eliminate intercompany transactions and to include the cash flows of the CUEF in the statement of cash flows. The following items are reclassified as a result of this review:

- (a) Derivative liabilities of £5.2m were previously included in Investments - other investments in non-current assets in the statement of financial position. These are to be separately disclosed in Creditors: amounts falling due within one year, to show the gross asset and liability position. This adjustment has no impact on the statement of comprehensive income, statement of cash flows or statement of changes in reserves. Derivative assets and liabilities have been netted down by £124.7m in Note 41 to correct the disclosure.
- (b) Cash and cash equivalents held by the CUEF were not included in the consolidated statement of cash flows in the prior year. A restatement of £362.1m at 31 July 2021 and £52.3m at 31 July 2020 has been made. This adjustment has no impact on the statement of comprehensive income or statement of changes in reserves.
- (c) In the statement of cash flows, the prior year has been restated to decrease proceeds from sales of other non-current asset investments by £245.0m and increase the payments made to acquire other non-current asset investments by £63.3m, with a resultant decrease in the (reduction) / increase in cash and cash equivalents for the year of £181.7m, to eliminate intercompany subscriptions, redemptions and distributions within the CUEF, and to increase the net (acquisition) / sale of CUEF investment assets by £547.9m to present CUEF cash flows in the consolidated position. Cash flows relating to Colleges and Associated Bodies have been reclassified from cash flows from investing activities to financing activities and has been disclosed gross where it has previously been netted off. This restatement results in an increase in Colleges and Associated Bodies – CUEF subscriptions of £33.5m, a decrease in Colleges and Associated Bodies – CUEF redemptions of £81.0m and a decrease in Colleges and Associated Bodies – distributions of £8.9m. This adjustment has no impact on the statement of comprehensive income or statement of changes in reserves.

The restatements described above have also been reflected in the relevant notes to the accounts, and where appropriate the Financial Review and Appendix 1.

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 2022. It should be read in conjunction with the consolidated financial statements and related notes.

Where appropriate, adjustments have been made to years 2020 and 2021 reported values in sections (b) and (c) to align Appendix 1 with the restatement of comparatives described in Note 3 to the Financial Statements. Years 2018 and 2019 have not been adjusted.

(a) Summary consolidated statement of comprehensive income (£m)

	2022	2021	2020	2019	2018
Total income	2,218.8	2,176.9	2,074.9	2,192.0	1,964.8
Total expenditure	(2,301.1)	(2,073.2)	(1,969.8)	(2,307.5)	(1,911.1)
(Deficit) / Surplus before other gains and losses	(82.3)	103.7	105.1	(115.5)	53.7
Share of operating surplus / (deficit) in joint ventures	0.4	1.4	(0.8)	1.5	–
Gain on disposal of fixed assets *	7.5	(1.1)	4.7	–	–
Gain / (loss) on investments	199.0	781.6	(22.3)	235.1	219.0
Surplus for the year before taxation	124.6	885.6	86.7	121.1	272.7
Surplus for the year	120.2	883.5	84.7	117.3	269.6
Actuarial gain / (loss)	596.0	30.0	(156.8)	(208.2)	122.5
Other comprehensive income / (expense) for the year	1.2	(2.8)	(2.8)	–	(1.3)
Total comprehensive income / (expense) for the year	717.4	910.7	(74.9)	(90.9)	390.8
Represented by:					
Endowment comprehensive income / (expense) for the year	98.7	445.7	(38.8)	115.6	127.8
Restricted comprehensive income for the year	7.7	129.0	126.2	121.5	74.3
Unrestricted comprehensive income / (expense) for the year	611.0	336.0	(162.3)	(328.0)	188.7
	717.4	910.7	(74.9)	(90.9)	390.8
Adjusted consolidated statement of comprehensive income					
Surplus for the year	120.2	883.5	84.7	117.3	269.6
Less: (Gain) / loss on investments	(199.0)	(781.6)	22.3	(235.1)	(219.0)
(Less) / Add: CPI-linked bond fair value adjustment	(182.2)	17.0	98.8	51.5	–
Add / (Less): USS pension deficit recovery reflected in staff costs	260.8	6.1	(160.4)	230.7	4.5
Less: Donation, endowment and capital grant income	(95.9)	(221.2)	(199.8)	(218.6)	(129.6)
Add: CUEF income (distribution basis)	121.5	116.0	112.1	105.0	97.0
Adjusted operating surplus / (deficit) for the year	25.4	19.8	(42.3)	50.8	22.5

* Prior to 2019–20 any gain/loss on disposal of fixed assets was included in 'other income' and not separately disclosed on the face of the statement of comprehensive income.

Appendix 1 (continued)**(b) Summary consolidated statement of financial position (£m)**

	2022	2021	2020	2019	2018
Non-current assets	7,714.1	7,217.9	6,511.3	6,528.1	6,106.7
Current assets	1,872.9	2,005.2	1,765.1	1,770.4	1,833.8
Total assets	9,587.0	9,223.1	8,276.4	8,298.5	7,940.5
Current liabilities	(1,099.7)	(993.2)	(966.6)	(1,038.7)	(1,096.8)
Non-current liabilities	(1,794.4)	(2,250.4)	(2,240.8)	(2,115.0)	(1,606.3)
Net assets	6,692.9	5,979.5	5,069.0	5,144.8	5,237.4
Income and expenditure reserve – endowment	2,476.9	2,378.2	1,932.5	1,971.3	1,855.7
Income and expenditure reserve – restricted	190.1	182.4	153.5	128.3	97.9
Income and expenditure reserve – unrestricted	4,025.9	3,418.9	2,983.0	3,045.2	3,283.8
Total reserves	6,692.9	5,979.5	5,069.0	5,144.8	5,237.4
Net cash/(debt)	105.0	150.3	(32.2)	(84.7)	(21.3)
(Less) / Add: CPI-linked bond fair value adjustment (cumulative adjustment)	(14.9)	167.3	150.3	51.5	–
Less: accretion of CPI-linked bond (cumulative adjustment)	(25.1)	(15.6)	(9.0)	(7.3)	(1.3)
Adjusted net cash / (debt)	65.0	302.0	109.1	(40.5)	(22.6)

(c) Summary consolidated statement of cash flows (£m)

	2022	2021	2020	2019	2018
Net cash inflow from operating activities after taxation	118.0	119.2	123.5	124.4	78.7
Net cash (outflow) / inflow from investing activities	(412.6)	405.9	(314.2)	(292.6)	(103.3)
Net cash inflow / (outflow) from financing activities	66.7	(77.9)	12.5	45.4	598.6
(Reduction) / increase in cash and cash equivalents in the year	(227.9)	447.2	(178.2)	(122.8)	574.0
Cash and cash equivalents at end of the year	773.6	1,001.5	554.3	732.5	855.3

ANNUAL REMUNERATION REPORT

The Council publishes the following report on remuneration to provide assurance that the Council, acting through its Remuneration Committee, has discharged its responsibilities effectively. The report also provides a further breakdown of remuneration data, which can be read in parallel with the remuneration data provided in the Notes to the Accounts section of the Reports and Financial Statements for the year ended 31 July 2022 (at p. 527 above).

Remuneration report, 2021–22

INTRODUCTION

This report is based on current guidance provided by both the Committee of University Chairs (CUC) and the Office for Students (OfS). The report is in two parts:

- A. a description of the University's Remuneration Committee; and
- B. details about the required pay disclosures set out in the University's Reports and Financial Statements for the year ended 31 July 2022 (p. 487 at p. 527).

The general principles behind the University's overall approach to remuneration for all staff are presented in Annex 1.

A. THE REMUNERATION COMMITTEE

The University's Remuneration Committee operates under delegated authority from the University's Council and is responsible, *inter alia*, for setting the Vice-Chancellor's pay, reviewing the Vice-Chancellor's performance and advising on senior post-holders¹ remuneration. The Committee meets about ten times a year and is comprised of a Chair who is an external member of the Council and four other members. Of these four members, at least two will be members of the Council, and at least two will be completely external to the University or external to the Academic University² (but may be members of a Cambridge College or other associated organisation). The role of the Committee continues to evolve in response to emergence of best-practice guidance from a range of bodies.

It should be noted that the Remuneration Committee only looks at remuneration of the most senior members of the University; general remuneration and HR matters and promotions are the business of the HR Committee.

1. Terms of reference

The current terms of reference (ToRs) for the Remuneration Committee were updated in February 2021 and approved by the Council in April 2021.³ These ToRs were originally developed in line with the CUC Remuneration Code for Higher Education, the Office for Students (OfS) Regulatory Framework for Higher Education in England, and revisions to the Financial Reporting Council Corporate Governance Code. The latest revision reflects the new governance arrangements following the creation of the Property Board and subsequent abolition of the West and North West Cambridge Estates Board Remuneration Committee.

The following staff fall within the Committee's remit:⁴

- the Vice-Chancellor (VC)
- the Vice-Chancellor-Elect / Acting Vice-Chancellor (when appropriate)
- the Pro-Vice-Chancellors (PVCs)
- the Registry
- the Chief Financial Officer
- the Executive Director of Development and Alumni Relations (CUDAR)
- the Director of University Information Services (UIS)

2. Senior pay

The Committee takes account of benchmarking data for similar roles within its remit from the Universities and Colleges Employers' Association (UCEA), the Russell Group Survey, search firms, and, where available and relevant, international salary surveys.

¹ Senior post-holders are the post-holders who report directly to the Vice-Chancellor, in institutions for which the Council is the competent authority and such other senior posts as may be determined by the Council from time to time.

² The staff of the Academic University are defined as those involved in the core teaching and research activities of the University, but *excluding* the staff of the Property Group, University of Cambridge Investment Management Limited (UCIM), Cambridge University Press and Cambridge Assessment (which merged on 1 August 2021), and all subsidiary companies, associated trusts and joint ventures.

³ *Reporter*, 6590, 2020–21, p. 19.

⁴ There was no Director of Communications and External Affairs in post during the year but ordinarily that post would fall within the remit of the Remuneration Committee.

3. Membership of the Committee

Membership is set out in the ToRs. The members for the period in question were as follows:

<i>Name</i>	<i>Position</i>	<i>Appointing body</i>
Ms Gaenor Bagley (Chair)	External, member of the Council	The Council
Professor Dame Madeleine Atkins	External, member of the Council, and President of Lucy Cavendish College	The Council
Dr Neil Churchill	External, Director for Experience, Participation and Equalities at NHS England	The Council
Professor Anthony Davenport	Professor of Cardiovascular Pharmacology, and member of the Council	The Council
Dr Andrew Sanchez	Associate Professor of Social Anthropology, and member of the Council	The Council
<i>In attendance:</i>		
Ms Emma Rampton	Registrary (Secretary)	<i>ex officio</i>
Professor Kamal Munir	Pro-Vice-Chancellor for University Community and Engagement	<i>ex officio</i>
Ms Andrea Hudson	Director of Human Resources	<i>ex officio</i>

4. Meetings

The Remuneration Committee of the Council met ten times during the 2021–22 academic year. The Committee was chaired by Ms Gaenor Bagley, an external member of the Council.

A written report of the Committee's business is submitted to the following Council meeting (usually a month later).

In accordance with its terms of reference, the main business for the Committee during 2021–22 was devising the remuneration package for the next Vice-Chancellor, which included a detailed consideration of the contractual terms and other benefits. An initial proposal was presented to the Council in April 2022 and the final package recommended to the Council in July 2022, once the circumstances of the short-listed candidates were known. The Committee also recommended to the Council a remuneration package for the Acting Vice-Chancellor.

The Committee further recommended to the Council market payments in respect of two Pro-Vice-Chancellors.

As in previous years, the Committee reviewed and, as appropriate, approved new cases and renewals for market payments to Grade 12 staff and approved cases for payments to external members of certain committees. The Committee reviewed and contributed to the University's Equality Information Report 2021⁵. It also led the annual process for the review of the Vice-Chancellor's performance against his objectives, delivering a report to the Council for approval in July 2022.

The non-conflicted members of the Committee reviewed the proposal approved by the Council on 23 May 2022 to pay a one-off non-consolidated payment of £1,000 to all employees of the Academic University.

B. SENIOR PAY DISCLOSURES

1. The Vice-Chancellor

(a) Pay and remuneration

Details of the remuneration of the Vice-Chancellor

The remuneration of the Vice-Chancellor is detailed in the table below and relates to the year from 1 August 2021 to 31 July 2022, with the comparative relating to the year from 1 August 2020 to 31 July 2021.

Emoluments of the Vice-Chancellor	Year ended 31 July 2022 (£'000)	Year ended 31 July 2021 (£'000)
Salary for the period	385	379
Deductions to reflect salary sacrifice arrangements	(10)	(9)
Net salary paid in the year	375	370
Taxable benefits in kind	52	24
Non-taxable benefits in kind	22	19
Total excluding employer pension contributions	449	413
Employer pension contributions	31	17
Payments made in lieu of pension	46	45
Total	526	475

The principal increases were due to:

- the 1.5% national pay award (salary);
- the change in tax treatment for accommodation;
- the change in the USS Enhanced Opt Out contributions, which increased to 6.3% in October 2021.

⁵ Available at <https://www.equality.admin.cam.ac.uk/equality-reports>.

(b) External appointments – payments from external bodies to the Vice-Chancellor

Income generated from external bodies is set out in the University's Private Work and Consultancy Statement.⁶

The Vice-Chancellor is an *ex officio* member of the International Academic Advisory Panel (IAAP) established by the government of Singapore. The meetings normally occur every 2–3 years and the Vice-Chancellor last attended in June 2018. The fee for the Vice-Chancellor's advisory work is paid directly to the Vice-Chancellor's Office and used for University purposes.

(c) The pay ratio – Head of Institution against median of all staff

The Vice-Chancellor's **basic** salary is 10.5 times (2021: 10.7) 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.

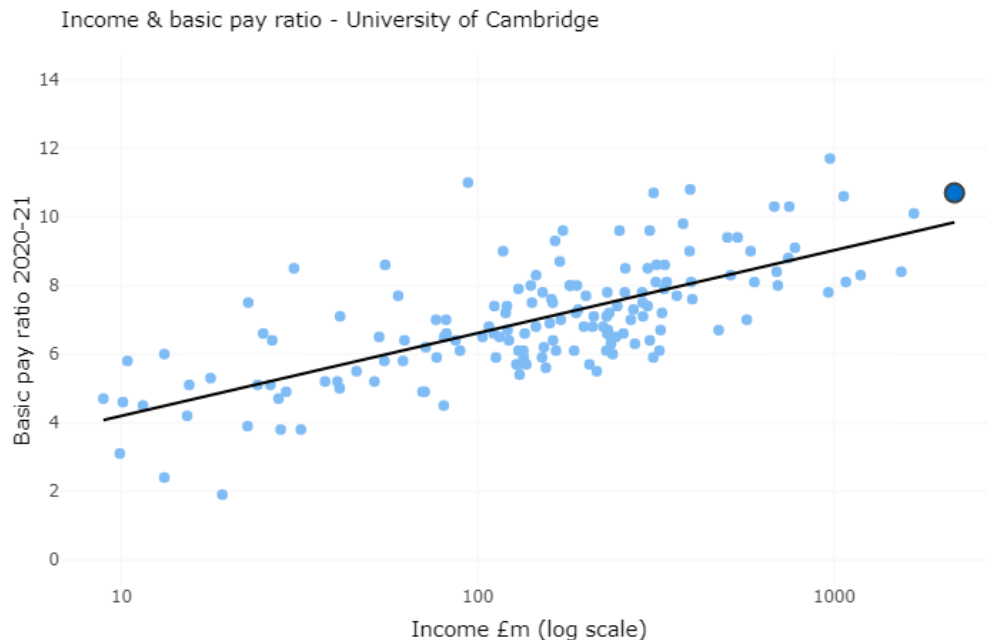
The Vice-Chancellor's **total remuneration** is 11.9 times (2021: 11.2) the median pay of staff, where the median pay is calculated on a full-time equivalent basis for the total remuneration paid by the University to its staff. The comparative ratio reflects the full-year remuneration equivalent for the Vice-Chancellor. This has increased this year due to the changes in the tax treatment of the accommodation benefit; and the increased employer contributions for USS.

Compared to academic staff alone, the current Vice-Chancellor's total remuneration is 6.7 times (2021: 6.0) times the median total remuneration of academic staff (including clinical staff). The increase here is also due to the changes in the tax treatment of the accommodation benefit; and the increased employer contributions for USS.

The median pay calculation includes over 1,013 agency staff employed on temporary contracts through the University's Temporary Employment Services (TES).

Comparative data for the Sector are not yet available for 2021–22. However, through UCEA, the University has access to similar data for the year 2020–21.

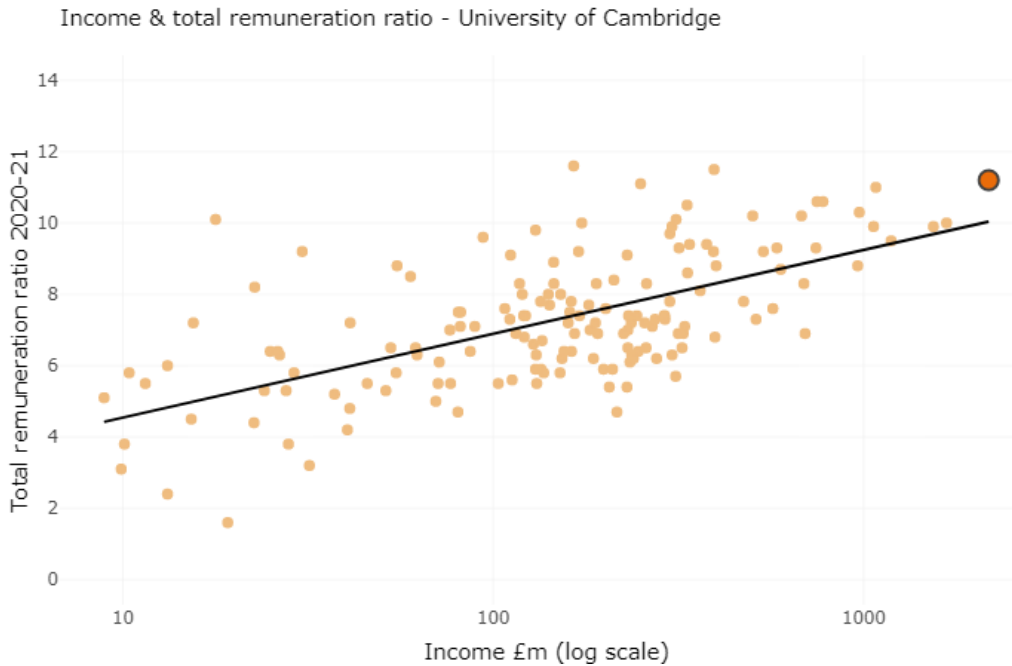
The two graphs below illustrate the 2020–21 (UCEA-sourced) data for both the University of Cambridge (highlighted) and all other UK Higher Education Institutions (HEIs). (Note: Income refers to total income from across the University Group.)

Relationship between income and basic pay ratio – University of Cambridge

Source: UCEA

⁶ <https://www.hr.admin.cam.ac.uk/hr-staff/information-staff/staff-guide/terms-employment/private-consultancy>.

Relationship between income and total remuneration ratio – University of Cambridge



Source: UCEA

2. Senior postholders' remuneration

For Pro-Vice-Chancellors, whose salary is calculated via a formula, the Committee:

- recommends to the Council approval of market pay awards on appointment, and any subsequent change to such market payments. Together with the appointee's prior academic salary, this will determine the remuneration of the Pro-Vice-Chancellor role;
- separate from any increase to market pay awards, the base component of a Pro-Vice-Chancellor's salary will rise in line with the agreed increase in the single pay spine.

Two market payments to these roles were approved during 2021–22.

For the Chief Financial Officer, the Registrar, the Executive Director of CUDAR and the Director of the UIS, the Committee:

- recommends to the Council a salary range within which an initial appointment can be made;
- informs the Council of the actual salary at which the candidate has been appointed within that range;
- informs the Council of the range of their salary increases in an anonymised form compared to any increase in academic or other salaries.

No market payments to these roles were approved during 2021–22.

The total remuneration (basic salary and any additional payments (namely directorships, PVC supplements, market pay, but excluding pension arrangements)) of senior post-holders (at 31 July 2022) who fall under the purview of the Remuneration Committee (excluding the Vice-Chancellor – see B.1. above) are shown in £5k bands are below:

<i>Range</i>	<i>2022 Number</i>	<i>2021 Number</i>
£150,000–£154,999		
£155,000–£159,999	1	1
£160,000–£164,999		1
£165,000–£169,999	1	
£170,000–£174,999	1	1
£175,000–£179,999		
£180,000–£184,999	1	1
£185,000–£189,999	1	
£190,000–£194,999		1
£195,000–£199,999	1	1
£200,000–£204,999		
£205,000–£209,999	1	1
...		
£230,000–£234,999		1
£235,000–£239,999	1	
...		
£335,000–£339,999		1
£340,000–£345,000	1	
Total	9	9

Note: The remuneration of senior post-holders is also included in Appendix 1 (i.e. staff earning > £100k shown in £5k bands).

The movements between the numbers for 2021 and 2022 result from the application of the 2021 national pay award; and the appointment of the new Pro-Vice-Chancellor for University Community and Engagement, who replaced the previous Pro-Vice-Chancellor for Institutional and International Relations.

3. Payments to external members of University bodies and committees

The Committee applied the Policy on Payments to External Members of University Bodies and Committees⁷ to approve eleven payments.

4. Market pay

Market payments are made for recruitment, retention, promotion or renewal purposes and, where a case for market pay exceeds 10% of the lowest salary point of the Grade 12 band, the Remuneration Committee's approval is required.

Market payments are time-limited, requiring to be reviewed after no more than five years. Such payments are reduced each year by the amount of base pay that is increased as a result of an award made through any of the University's reward and progression schemes.

The annual report of market pay cases, showing submissions approved over the previous twelve months by the Remuneration Committee, appears below.

⁷ See [https://www.governance.cam.ac.uk/committees/remco/Documents/Policy on Payments to External Members of University Bodies and Committees.pdf](https://www.governance.cam.ac.uk/committees/remco/Documents/Policy%20on%20Payments%20to%20External%20Members%20of%20University%20Bodies%20and%20Committees.pdf).

Summary of market pay cases approved by the Remuneration Committee in 2021–22

	Value % Range		Request Type			Staff Type			Grade												Recruitment/Retention Successful?				
	Min	Max	Market Pay Recruitment	Market Pay Retention	Market Pay Renewal	Academic	Academic -Related	Non-Clinical Researcher	12		12.1		12.2		12.3		12.4		Yes	No	In Progress	Renewal			
			M	W	U	M	W	U	M	W	U	M	W	U	M	W	U	M	W	U					
Other Institutions (Council)	9.90%	31.00%	3	3	2		8																		
Other Institutions (General Board)	11.70%	11.70%	1			1																			
School of Arts and Humanities																									
School of the Biological Sciences	11.00%	39.20%	1		2	3																			
School of Clinical Medicine																									
School of the Humanities and Social Sciences	5.90%	154.00%	3	1	4	8																			
School of the Physical Sciences	3.70%	78.90%	6	4	6	15																			
School of Technology	5.90%	116.90%		2	10	11																			
Unified Administrative Service	9.40%	64.30%	6		1	7																			
Grand Total	3.70%	154.00%	20	10	25	37	17	1	1	14	5	9	2	4	13	3	3	1	6	1	23	25	25	25	

Notes

Min % and Max % represent %age of market pay value to bottom of grade or band.

12.1, 12.2 and 12.3 are Grade 12, Band 1, Band 2 and Band 3 respectively. Grade 12 applies to non-clinical researchers (who are not assigned to a band within Grade 12).

M = Men; W = Women; U = Unknown.

*In progress' cases represent approved cases where the recruitment / retention outcome is not yet known.

Renewal cases are assumed to have been successful, but are recorded separately in the data.

A total of 55 market pay cases were reviewed by the Committee between 1 October 2021 and 30 September 2022. The outcomes of the market pay cases reviewed were as follows:

- 53 cases were approved (at a total cost of £2,053,049) when submitted for the first time (1 case was approved twice, the first time at Band 3 and the second at Band 4).
- 2 cases were rejected following initial submission but were subsequently approved following discussion with the Department.

5. Salaries over £100,000

(a) Overview of the University Group⁸

The table below shows changes in salaries (basic salary plus market pay, if applicable) over £100,000 between 2021–22 and 2020–21 in the University Group.

	TOTAL GROUP					
	Clinical Academic		Non-clinical Academic and other		Total number	
	2022	2021	2022	2021	2022	2021
£100,001 – £150,000	142	91	374	317	516	408
£150,001 – £200,000	1	0	73	62	74	62
£200,001 – £250,000	0	0	29	15	29	15
£250,001+	0	0	6	6	6	6
	143	91	482	400	625	491

Note: Figures based on Regulatory Advice 9: Accounts Direction (OfS 2019.41) published 25 October 2019

The increase in Group employees paid over £100k is mainly due to role in Cambridge Press & Assessment (67 employees), for which they have their own Remuneration Committee; and the wider spread of clinical excellence awards for clinical employees due to Covid.

(b) Detailed breakdown within the University Group

(i) Academic University⁹

Overview

Band		2022	No change	Moved up from a lower band	Moved down from a higher band	New employees	2021
A	£100,000 – £150,000	383	280	105	3	0	319
B	£150,001 – £200,000	44	35	8	0	1	41
C	£200,001 – £250,000	8	6	1	1	0	9
D	£250,001+	3	2	1	0	0	3
	TOTAL	438					372

Note: Figures based on Regulatory Advice 9: Accounts Direction (OfS 2019.41) published 25 October 2019.

Movement between bands, both up and down, is common. Upward movement can occur due to the annual pay increase (this accounts for the majority of the upward movement this year) and for new starters in the previous year (i.e. those only receiving a part salary during 2020–21). Total remuneration can also change when starting or ending a Head of Department role, changes in market pay for retention purposes, or starting or ending payments for additional duties.

By band, the main reasons for change are:

- *Band A:* National pay award, clinical excellence awards, new starters in 2020–21 receiving their first full year salary, additional duties, Academic Career Pathway promotions;
- *Band B:* National pay award, new starters in 2020–21 receiving their first full year salary;
- *Band C:* National pay award, new starters; and
- *Band D:* New starters in 2020–21 receiving their first full year salary.

⁸ The staff of the University Group includes those involved in the teaching and research activities of the University *together with* the staff of the Property Group, University of Cambridge Investment Management Limited (UCIM), Cambridge Assessment and Cambridge University Press, all other subsidiary companies, Associated Trusts, joint ventures and associates.

⁹ The staff of the Academic University are defined as those involved in the core teaching and research activities of the University, but *excluding* the staff of the Property Group, UCIM, Cambridge University Press and Cambridge Assessment (which merged on 1 August 2021), and all subsidiary companies, associated trusts and joint ventures.

Breakdown by staff group

The chart below shows the breakdown of the Academic University between clinical academic salaries and non-clinical academic salaries:

	Academic University					
	Clinical		Non-clinical		Total number	
	2022	2021	2022	2021	2022	2021
£100,001 – £150,000	142	91	236	228	378	319
£150,001 – £200,000	1	0	46	41	47	41
£200,001 – £250,000	0	0	11	9	11	9
£250,001+	0	0	3	3	3	3
	143	91	296	281	439	372

Note: Figures based on Regulatory Advice 9: Accounts Direction (OfS 2019.41) published 25 October 2019.

(ii) Cambridge University Press & Assessment

The following chart gives details for Cambridge University Press & Assessment:

	Cambridge University Press & Assessment	
	2022	2021
£100,001 – £150,000	122	78
£150,001 – £200,000	26	18
£200,001 – £250,000	15	4
£250,001+	2	2
	169	102

Note: Figures based on Regulatory Advice 9: Accounts Direction (OfS 2019.41) published 25 October 2019.

(iii) Trusts and subsidiaries

The following chart gives details for trusts and subsidiaries:

	Trusts		Subsidiaries	
	2022	2021	2022	2021
£100,001 – £150,000	2	2	10	9
£150,001 – £200,000	0	0	1	3
£200,001 – £250,000	0	0	3	2
£250,001+	0	0	1	1
	2	2	15	15

Note: Figures based on Regulatory Advice 9: Accounts Direction (OfS 2019.41) published 25 October 2019.

Subsidiaries include:

Cambridge Enterprise, 2 FTE (2021: no change);
 Cambridge Investment Management Ltd (CIML), 7 FTE (2021: no change; note: the CIML Remuneration and Nominations Committee is responsible for overseeing payments to CIML staff);
 Institute for Manufacturing Education and Consultancy Services (IfM ECS), 2 FTE (2021: no change);
 Judge Business School Executive Education Limited (JBSEEL), 2 FTE (2020: no change);
 the Cambridge Centre for Advanced Research and Education in Singapore (CARES), 1 FTE (2021: no change);
 the PHG Foundation, 1 FTE (2021: no change).

Trusts include:

Cambridge Commonwealth European and International Trust, 1 FTE (2021: no change); and
 the Gates Cambridge Trust, 1 FTE (2021: no change).

(c) Compensation for ending employment

Across the Group, a total of 486 payments were made in the year to staff for the ending of employment (e.g. settlement agreements, redundancy payments, and termination of fixed-term contracts). This was an increase from the previous year due to an increased number of fixed term contracts ending.

<i>Compensation for loss of office</i>	2022		2021	
	Amount		Amount	
	Number	£'000	Number	£'000
Academic University	439**	3,284	426**	3,698
Fitzwilliam Museum (Enterprises) Limited	–	–	1	6
Cambridge University Press & Assessment	46	1,788	33	1,727
JBS Executive Education Ltd	1	21	–	–
	486	5,093	460	5,431

** The figures excluding the termination of fixed-term contracts are 27 cases costing £775k (2022) and 93 cases costing £1,971k (2021).

(d) Definition of pay

Pay is defined by the OfS as follows. Whilst the definition changed in the early years of publication of the Remuneration Committee's report, it has remained stable for the past four years.

<i>Pay element</i>	<i>OfS current definition</i>
Basic salary	✓
Market pay supplements / retention payments / enhancements	✓
Bonus	Not included
Local and National Clinical Excellence Award payments	Not included
Pension cash supplements	Not included
Additional programmed activity payments (Clinical academic staff only)	Not included
Wellcome Trust Merit Awards	Not included

All the definitions have defined the pay bandings to be before (i.e. gross of) salary sacrifice arrangements, and excluding employer pension contributions.

Higher pay banding analysis*Based on latest OfS definitions*

	TOTAL GROUP					
	Clinical		Non-clinical		Total number	
	2022	2021	2022	2021	2022	2021
£100,001–£105,000	33	12	58	71	91	83
£105,001–£110,000	34	19	83	62	117	81
£110,001–£115,000	5	35	63	31	68	66
£115,001–£120,000	45	8	24	40	69	48
£120,001–£125,000	13	6	36	27	49	33
£125,001–£130,000	5	8	31	21	36	29
£130,001–£135,000	6	2	19	16	25	18
£135,001–£140,000	1	0	19	13	20	13
£140,001–£145,000	0	0	21	14	21	14
£145,001–£150,000	0	1	20	22	20	23
£150,001–£155,000	0	0	20	7	20	7
£155,001–£160,000	0	0	7	12	7	12
£160,001–£165,000	0	0	13	6	13	6
£165,001–£170,000	0	0	4	4	4	4
£170,001–£175,000	0	0	10	7	10	7
£175,001–£180,000	0	0	6	6	6	6
£180,001–£185,000	1	0	4	5	5	5
£185,001–£190,000	0	0	6	7	6	7
£190,001–£195,000	0	0	2	5	2	5
£195,001–£200,000	0	0	1	3	1	3
£200,001–£205,000	0	0	4	3	4	3
£205,001–£210,000	0	0	4	4	4	4
£210,001–£215,000	0	0	6	1	6	1
£215,001–£220,000	0	0	2	2	2	2
£220,001–£225,000	0	0	6	0	6	0
£225,001–£230,000	0	0	2	1	2	1
£230,001–£235,000	0	0	1	1	1	1
£240,001–£245,000	0	0	1	1	1	1
£245,001–£250,000	0	0	2	2	2	2
£255,001–£260,000	0	0	0	0	0	0
£295,001–£300,000	0	0	1	1	1	1
£300,001–£305,000	0	0	0	0	0	0
£305,001–£310,000	0	0	1	1	1	1
£315,001–£320,000	0	0	0	0	0	0
£330,001–£335,000	0	0	0	0	0	0
£335,001–£340,000	0	0	0	1	0	1
£370,001–£375,000	0	0	0	0	0	0
£375,001–£380,000	0	0	0	1	0	1
£380,001–£385,001	0	0	1	0	1	0
£390,001–£395,000	0	0	0	1	0	1
	143	91	481	400	624	491

Note: Clinical staff are not on the University's pay scales.

ANNEX 1

GENERAL PRINCIPLES BEHIND THE UNIVERSITY'S OVERALL APPROACH TO REMUNERATION

1. Operating environment and markets

The University is proud to be one of the world's leading academic centres and is committed to attracting the most talented staff and students from the UK and from overseas to further that mission.

The University ranks in the top five in international league tables for the quality of its research. Cambridge can claim 121 Nobel Prize winners.¹

The University remains financially strong with an Aa1 (negative) rating from Moody's, a balance sheet of £6.7 billion, and a well-performing endowment fund of £3.8 billion that has, over the past several years, achieved compound returns above its benchmark.

The wider University Group includes Cambridge University Press & Assessment (CUP&A). Its qualifications, assessments, publications and original research spread knowledge, spark enquiry and aid understanding for millions of people around the world. CUP&A is the world's largest provider of educational programmes and qualifications for five to 19-year-olds, publishes more than 400 peer-reviewed journals, thousands of books and monographs and delivers assessment to eight million learners in more than 170 countries.

Across the Group, the University has an annual income of over £2.1 billion. Research income, won competitively from the UK Research Councils, the European Union (EU), major charities and industry, exceeds £580 million per annum. The Academic University has more than 11,500 staff, with a further 5,500 employed by its subsidiaries. Of the Academic University's staff, approximately half are employed on academic or research contracts.

2. Fundamental reward principles guiding decisions related to remuneration of all staff

The HR Committee and the Remuneration Committee agreed² a set of Reward Principles to guide all decisions relating to remuneration taken at the University:

- A recognition of the need for the University to operate in a competitive local, national and international market for the most talented staff. Our reward strategy needs to offer sufficiently competitive reward packages to attract and retain staff to help the institution retain its leading position in research and teaching.
- All staff should be rewarded in a way which demonstrates fairness and consistency, paying due attention to addressing pay gaps and appropriately valuing contributions of all staff.
- An acknowledgement that while pay and benefits are central, non-financial or intangible mechanisms are also important and should form part of our attractive total award approach.
- Remuneration must be affordable and consistent with the charitable status of the University.
- A commitment to transparency so that our staff, students, regulators and other stakeholders can have confidence in how we use our resources.
- Recognition of the higher than average cost of living in Cambridge, and the impact this has on our staff.

3. Policies and procedures guiding the remuneration of staff

The University has established a number of procedures and policies to guide the remuneration of staff drawing on the principles identified above. These include schemes to reward significant contribution to the University (which for senior academics can also include promotion); and schemes to recognise difficulties in recruitment and retention and where individuals take on responsibilities in addition to their normal duties. Details of these schemes are included in paragraph 8 below.

Factors in considering remuneration proposals for senior staff

At **recruitment** the factors taken into account when developing the total remuneration package include:

- appropriate remuneration needed to attract and appoint senior staff;
- current remuneration;
- benchmarked salary data for similar roles, from UCEA, the Russell Group Survey and where available and relevant, international salary surveys;
- the extent to which the individual has a demonstrable record of achievement (and how this could transfer to the role in question) in areas identified as being of strategic importance to the institution;
- the extent to which the individual has demonstrated staff development and strategic leadership in their area(s); and
- for senior clinical academic roles, the appointment package will be in line with their existing NHS national pay and conditions, including any Clinical Excellence Awards in payment, together with payment for any additional clinical activity.

For cases of **retention**, the factors set out in the University's procedures include:

- a managerial business case and evidence, including the impact that would or would be likely to occur if the individual was not retained and why they would be difficult to replace;
- evidence of exceptional contribution and achievements for which the individual is responsible and which demonstrate the furtherance of the University's mission;
- implications of the loss of the employee to the organisation, including organisational performance; internal relativities; gender pay position; reputation; student and teaching impact; research impact;
- evidence of any offer of alternative employment or approach from another university / organisation; and
- salary data including external and internal relativities and benchmarks.

¹ See <https://www.cam.ac.uk/research/research-at-cambridge/nobel-prize>.

² Approved on 24 February 2020.

The University draws data from many sources to support senior staff remuneration decisions. These include:

- annual participation in the UCEA, Russell Group and CUC salary surveys and provision of an analysis of these data to the Remuneration Committee to show the University's position in the market. These data are used in the consideration of the Vice-Chancellor's remuneration and during discussions about the recruitment or retention of Professorial and senior staff; and
- internal comparisons of pay for similar senior academic and professional services roles and a gender pay analysis. On 23 March 2022, the University published its 2021 Gender Pay Gap Report.³ The report showed a reduction on the previous year for the Academic University of 2.1% and 0.5% in the median and mean gender pay gaps respectively.

4. Job evaluation, pay awards and pension schemes

For most roles, the University uses the HERA job evaluation method. This does not apply to the four Professorial bands (in Grade 12, the highest grade), where movement through the bands is based on meeting the criteria for each of the Professorial levels under the headings of research, teaching and general contribution.

The University is a member of UCEA and participates in the national pay negotiations. The University's policy is to implement the outcomes of the pay negotiations across all staff, with the exception of clinical academic staff where the University applies the NHS pay uplifts once agreed nationally.

The University operates the following principal pension schemes:

- Universities Superannuation Scheme (USS);
- Cambridge University Assistants' Contributory Pension Scheme (CPS);
- National Health Service Pension Scheme (NHSPS);
- Cambridge Colleges' Federated Pension Scheme (CCFPS).

5. Performance-related pay

The Academic University does not operate a specific performance-related pay scheme, other than the NHS scheme for some senior clinicians (who are not on the University's pay scales).

In normal years, Grade 12 post-holders can progress through the Professorial Pay Review scheme (for Professorial roles) or the Contribution Reward Scheme (for academic-related roles). For the 2020–21 academic year, all progression and reward schemes were paused due to the financial impact on the University of the Covid-19 pandemic. On 22 February 2021, the Council approved the restart of such schemes for the 2021–22 academic year.

Staff at Cambridge University Press & Assessment also have bonus arrangements which are assessed by their own remuneration committees and reported to their respective Boards.

6. Expenses policy

The University's expenses policy is included in the Financial Procedures Manual.⁴ It applies to all University staff.

7. Policy on income derived from external activities

The University does not have a specific policy on income derived from private consultancy. However, staff have a contractual requirement with respect to any external activities they undertake which states:

The University does not expect to be informed about remuneration from private work and consultancy. Such work, however, must not interfere with the performance of the duties of your office or post. If you are in any doubt about this you should consult your head of institution. If you undertake any work in a private capacity or act as a consultant, you should be clear that you undertake such work at your own risk, and that the University must not be involved in any such arrangements. University letterheads or other facilities must not be used.

8. Reward and progression schemes

The University operates a number of contribution reward and progression schemes, many of which are currently under review. Details of the current schemes can be found on the University website: <https://www.hr.admin.cam.ac.uk/pay-benefits/reward-schemes>. These include:

- Professorial Pay Review
- Academic Careers Pathways Scheme
- Contribution Increment Scheme for Researchers
- Contribution Increment Scheme for Grade 12 Academic-Related Staff
- Contribution Reward Scheme (for academic-related and assistant staff in Grades 1–11)
- Additional Responsibility Payments
- Market Pay
- Advanced Contribution Supplements
- Recruitment incentive schemes

The University's promotion processes apply to academic staff only. For all other categories of staff, promotion occurs through the advertising of vacancies and an application and selection process including interviews.

For senior staff (Grades 11, 12 and those above the scale), there is no automatic incremental progression, only the annual nationally negotiated uplift in the salary scale points. For staff in grades up to Grade 10, annual automatic incremental progression applies.

³ Available from <https://www.equality.admin.cam.ac.uk/equality-reports>.

⁴ <https://www.finance.admin.cam.ac.uk/policy-and-procedures/financial-procedures>.

Professorial Pay Review

The Professorial Pay Review (PPR) process involves Professors applying, should they wish to, every two years. The process involves the applicant supplying evidence of achievement against the band descriptors, of which there are four bands. The determination of awards is made by the Vice-Chancellor's Advisory Committee on Professorial Pay. This Committee receives recommendations for awards in bands 1 and 2 [or progression from band 1 to 3] from a School level committee and determines awards within or progression to bands 3 and 4.

PPR was reviewed during 2021–22, with modification to the scheme proposed. Phase 1 of the changes were approved during 2021–22 and will be implemented during the PPR 2022 exercise. These changes include:

1. Amending the period covered by an application to the period from the date of the last increment awarded, for within band applications; or from the date of promotion / appointment to the current professorial band, for applications to a higher band.
2. Removing the requirement for applicants to provide external referees for within band applications.
3. Providing summary data to Heads of Department on the pay and career progression of their Grade 12 Professors.
4. Introducing an expectation that progression (upon application) for those within the first three points of Grade 12 Band 1 will be awarded, so long as applicants can demonstrate they have maintained the expected level of performance as at the time of promotion to the level of a Grade 12 Professor.

Phase 2 of the Scheme will be further developed during 2022–23, with an expectation that further changes will be approved for the 2024 PPR exercise.

Academic Careers Pathways scheme

The Academic Career Pathways Scheme (ACP) allows eligible academic staff to apply for promotion to the offices of Associate Professor (Grade 10), Professor (Grade 11) and Professor (Grade 12). The ACP was run for the first time during 2021–22, replacing the previous Senior Academic Promotions Scheme (SAP).

Contribution Increment Scheme for Researchers

This termly scheme allows Heads of Institution to reward research staff on the basis of outstandingly good work by the member of staff in comparison with others of the same grade and for which some additional recompense is appropriate; or, where a recruitment incentive payment cannot be awarded, on the basis of the need to retain the specialist skills possessed by a particular member of staff who would otherwise be likely to seek a more highly paid appointment elsewhere.

Contribution Increment Scheme for Grade 12 Academic-Related Staff

The University operates a biennial contribution reward scheme for academic-related Grade 12 post-holders. To be eligible for consideration, individuals must have been in post and performing their duties at their current grade for at least two years prior to the effective date of the award. Increments are awarded for sustained and ongoing contribution and there must be some indication that the cost is justified by the benefit brought to the University over the longer term.

Cases are considered by the Registry, relevant Pro-Vice-Chancellor or Head of School (as appropriate) who will put forward recommendations to the Vice-Chancellor's Advisory Committee on Supplementary Payments for Non-Academic Officers in the Professorial Grade 12.

Contribution Reward Scheme for Academic-Related and Assistant Staff in Grades 1–11

The University operates an annual contribution reward scheme for academic-related and assistant staff in Grades 1 to 11. The scheme has two components:

1. *Contribution Increments (for sustained / ongoing contribution)*
The award of additional increments (in the normal pay range or in the contribution range for the grade) to recognise an individual's outstanding contribution over and above the normal expectation for the role, over a period of at least a year and in the context of expected continuation at that level.
2. *Single Contribution Payments (for one-off / time-limited contribution)*
The award of one-off payments of 3% (individual awards) or 2% (team awards) of salary to recognise an individual's outstanding contribution, over and above the normal expectation for the role, in the context of a one-off task or project that is finite in nature.

Additional Responsibility Payments

Additional Responsibility Payments can be made to employees who are taking on additional responsibilities over and above those set out in their job description and at a higher level, with the agreement of their institution. Examples include, if the employee is taking on additional higher-graded duties for a percentage of time rather than for their full hours; or for temporary acting-up duties. Additional Responsibility Payments can be paid to Academic, Academic-Related and Assistant staff irrespective of grade or type.

Market Pay

In terms of market pay considerations, the grade of an office or post is first determined prior to advertisement using the Higher Education Role Analysis (HERA) scheme. Where evidence indicates that similar posts outside the University command a higher salary than that determined by role analysis, it may be appropriate to request a Market Pay award in order to secure the recruitment or retention of an individual. Market Pay is aimed at Assistant and Academic-Related posts where a particular specialist skill exists, but is also used to recruit or retain academic staff where there are particular pay pressures in the discipline.

Advanced Contribution Supplements

In view of the difficulties experienced in defining the ‘market’ in relation to academic posts, where justified, an Advanced Contribution Supplement (ACS) may be awarded as the primary means of supplementing the salary of an academic member of staff for retention or recruitment purposes. An ACS is awarded on the expectation that an individual will reach a certain level of achievement (normally no more than five years ahead).

Contribution reward and progression schemes apply to all employees on the single salary scale.

Recruitment incentive schemes

Recruitment incentive payments. These are one-off, taxable, *ex gratia* payments that do not form part of the employee’s salary. Payments can only be made to individuals taking up their first appointment at the University. The award of a payment is conditional upon the employee completing at least three years of service; repayments are required if the employee leaves before that time is up. All requests for recruitment incentive payments must be considered by the Head of the relevant School, and by the Registry in the case of Council institutions.

There are a number of other recruitment incentives available to staff, including:

- the *rental deposit loan scheme*, which provides an interest-free loan of up to £3,000. This can be used for some of the costs associated with private rental accommodation, such as initial deposit, first month’s rent and other fees;
- the *shared equity scheme* is available to new permanent members of staff (Grade 7 and above) and holders of certain fellowships, to help with the purchase of living accommodation if they have to relocate to take up their appointment. Under the scheme, the University may make a contribution towards the capital cost of purchasing a property close to, or within Cambridge, and would hold a share of the equity in proportion to its capital contribution;
- the *visa loan scheme*. The University recognises that UK immigration fees present a considerable burden for non-EEA staff, particularly members of the postdoctoral community who may struggle to meet these costs for themselves and their families. The scheme offers an interest-free loan for prospective staff and their dependants, up to a certain value, which staff members can use toward meeting the costs of these visas; and
- *relocation expenses*. This scheme provides financial assistance of up to £8,000 with relocation costs for moves within the UK and from overseas. The scheme is open to all newly appointed centrally-funded staff.

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