

NOTES TO THE ACCOUNTS FOR THE YEAR ENDED 31 JULY 2017**1. General information**

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

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

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

2. Statement of compliance

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

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

3. Statement of significant accounting policies*(a) Basis of preparation*

The financial statements have been prepared under the historical cost convention, as modified by the recognition of certain financial assets and liabilities measured at fair value.

The University has taken advantage of exemptions in FRS 102:

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

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

(b) Going concern

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

- undertakes a robust and detailed annual business planning and budgeting process, including preparation of a five-year financial sustainability review in line with HEFCE guidance and as such the going concern nature of the University has been considered for a period of greater than twelve months from the date of approval of the financial statements;
- applies prudent financial and cash management in order to ensure that its day to day working capital needs can be met out of cash and liquid investments; and
- has considered the potential impact of credit risk and liquidity risk detailed in note 39.

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

(c) Basis of consolidation

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

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

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

The University accounts for jointly controlled assets and operations based upon its share of costs incurred and recognizes its share of liabilities incurred. Income and expenditure is recognized based upon the University's share.

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

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

The consolidated financial statements do not include the accounts of Cambridge University Students' Union or of the 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.

Notes to the accounts for the year ended 31 July 2017 (continued)

3. Statement of significant accounting policies (continued)

(d) *Foreign currencies*

The University financial statements are presented in pounds sterling and rounded to millions.

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

(e) *Recognition of income*

Revenue

Income arising from the sale of goods or the provision of services is recognized in income on the exchange of the relevant goods or services and where applicable is shown net of value added taxes. In particular:

Tuition fees and education contracts

Tuition fees for degree courses are charged to students by academic term. Income is recognized for academic terms falling within the period. For short courses, income is recognized to the extent that the course duration falls within the period. Professional course fees and other educational contract revenues are recognized 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 recognized when services are rendered and substantially complete. Income from qualifications not based on examination sessions is recognized in proportion to the number of modules required for the qualification that have been achieved by candidates.

Publishing services

In the case of books and other print publications, income is recognized on delivery of the goods to the customer. Income generated from electronic publishing, including the provision of perpetual access, is recognized when the material is initially made available. Subscriptions income is recognized evenly over subscription periods. Journals income is recognized when the journals are published and shipped. Rights and permissions income is recognized on a cash receipt basis. Income in respect of certain co-publishing arrangements is recognized upon the printing of content by the co-publishing partner.

Grant income

All grant funding, including HEFCE grants, research grants, and capital grants, from government and other sources, is recognized in income when the University is entitled to the funding and any performance-related conditions have been met. Income received in advance of performance-related conditions being met is recognized as deferred income within creditors on the balance sheet and released to income as the conditions are met. Research and development expenditure credits receivable from HM Revenue & Customs are recognized as income when the relevant expenditure has been incurred and there is reasonable assurance of receipt.

Donations and endowments

Donations and endowments are recognized in income when the University is entitled to the funds.

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

Donations with no substantial restrictions are included in unrestricted reserves.

Donations which are to be retained for the future benefit of the University are included in endowment reserves.

Endowment funds are classified under three headings:

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

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

Investment income

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

Notes to the accounts for the year ended 31 July 2017 (continued)

3. Statement of significant accounting policies (continued)

(f) Employee benefits

Short-term benefits

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

Pension costs

The University contributes to a number of defined benefit pension schemes for certain employees. A defined benefit scheme defines the pension benefit that an employee will receive on retirement, dependent upon several factors including length of service and remuneration.

- (i) Where the University is unable to identify its share of the underlying assets and liabilities in a multi-employer scheme on a reasonable and consistent basis, it accounts as if the scheme were a defined contribution scheme, so that the cost is equal to the total of contributions payable in the year. Where the University has entered into an agreement with such a multi-employer scheme that determines how the University will contribute to a deficit recovery plan, the University recognizes 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 recognized in expenditure.
- (ii) For other defined benefit schemes, the net liability recognized 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 University engages independent actuaries to calculate the obligation for each scheme. The present value is determined by discounting the estimated future payments at a discount rate based on market yields on high quality corporate bonds denominated in sterling with terms approximating to the estimated period of the future payments.

The fair value of a scheme's assets is measured in accordance with the FRS 102 fair value hierarchy and in accordance with the University'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, recognized 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 recognized in expenditure as a finance cost.

Further detail is provided on the specific pension schemes in note 34 to the accounts.

(g) Intangible assets and goodwill

Software development and acquisition costs are capitalized and amortized 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 amortized 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.

(h) Fixed assets

Land and buildings

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

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

Assets under construction

Assets under construction are stated at cost. These assets are not depreciated until they are available for use.

Equipment

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

Notes to the accounts for the year ended 31 July 2017 (continued)

3. Statement of significant accounting policies (continued)

(i) 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 capitalized, since reliable estimates of cost or value are not available on a cost-benefit basis. Acquisitions since 1 August 1999 have been capitalized 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 capitalizing 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.

(j) Investments

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

- (a) investments in subsidiary undertakings and joint ventures which are stated in the University's balance sheet at cost and eliminated on consolidation; and
- (b) the North West Cambridge development, currently under construction, which is held at cost.

Other properties held for investment purposes are valued annually on the basis of estimated open market values on an existing use basis by Knight Frank or, in the case of local non-operational properties, by chartered surveyors employed by the University. Marketable securities are valued at midmarket valuation on 31 July. Investments in spin-out companies are valued in accordance with the International Private Equity and Venture Capital Guidelines, and other non-marketable securities are included at valuation by the Council. Current asset investments are included in the balance sheet at the lower of cost and net realizable value.

All gains and losses on investment assets are recognized in the statement of comprehensive income as they accrue.

(k) Stocks and work in progress

Stocks are stated at the lower of cost and net realizable value after making provision for slow moving and obsolete items. In respect of publishing services, (a) direct costs incurred prior to publication are included in stocks and work in progress and are written off over a period of up to three years from the publication date; and (b) the University makes full provision against the cost of stock in excess of one and a half times the most recent year's sales on all publications dated more than two years before the reporting date.

(l) Cash and cash equivalents

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

(m) Financial instruments

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

Financial assets

Basic financial assets include trade and other receivables, cash and cash equivalents. These assets are initially recognized 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 amortized 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 recognized in the statement of comprehensive income.

For financial assets carried at amortized 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 recognized in the statement of comprehensive income. Where the investment in equity instruments is not publicly traded and where the fair value cannot be reliably measured the assets should be measured at cost less impairment.

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

Notes to the accounts for the year ended 31 July 2017 (continued)

3. Statement of significant accounting policies (continued)

Financial liabilities

Basic financial liabilities include trade and other payables, bank loans, and inter-group loans. These liabilities are initially recognized 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 amortized cost using the effective interest rate method.

Fees paid on the establishment of loan facilities are recognized 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 Bonds issued in October 2012 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 amortized cost using the effective interest rate method. Under this method the discount at which the Bonds were issued and the transaction costs are accounted for as additional expense over the term of the Bonds (see note 27).

Trade payables are obligations to pay for goods and services that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities. Trade payables are recognized initially at transaction price and subsequently measured at amortized cost using the effective interest rate method.

Derivatives, including forward foreign exchange contracts, are not basic financial instruments. Derivatives are initially recognized 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 recognized in the statement of comprehensive income in finance costs or finance income as appropriate, unless they are included in a hedging arrangement.

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

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

(n) Related party transactions

The University discloses transactions with related parties which are outlined in detail in note 38 to the accounts.

(o) Segment information

The University 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 organization (see note 17).

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 University's financial position, financial performance, and cash flows. The preparation of the University's financial statements requires management to make judgements, estimates, and assumptions that affect the application of policies and reported amounts of assets and liabilities, income, and expenses. These judgements, estimates, and associated assumptions are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results.

Management consider the areas set out below to be those where critical accounting judgements have been applied and the resulting estimates and assumptions may lead to adjustments to the future carrying amounts of assets and liabilities:

(i) Revenue recognition

Revenues are subject to judgement over when and by how much revenues should be recognized in the financial statements. This includes determining when performance criteria have been met, recognizing research and other funding revenues in line with expenditure once a right to the funding is deemed to have arisen, determining the revenues associated with partially delivered courses and training where the activities have not been fully completed at the reporting date.

(ii) Depreciation and amortization

The depreciation and amortization expense is the recognition of the use of the asset over its estimated useful life. Judgements are made as to the estimated useful lives of the assets and associated residual values which may be impacted by changes in economic or technological circumstances.

(iii) Investment valuations (note 11)

The Cambridge University Endowment Fund is comprised of a range of asset investment categories where there is not always a clearly observable valuation basis available. Investments which are not listed or which are not frequently traded are stated at the Valuation Committee's best estimate of fair value. With respect to investments held through pooled funds or partnerships, reliance is placed on unaudited valuations of the underlying listed and unlisted investments as supplied to the CUEF custodian by the administrators of those funds or partnerships. The principles applied by the administrators to those valuations are reviewed to ensure they are in compliance with CUEF policies. With respect to other investments, recognized 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.

Notes to the accounts for the year ended 31 July 2017 (continued)

4. Critical accounting judgements, estimates, and assumptions (continued)

(iv) *Valuation of investment properties*

Properties held for investment purposes are revalued annually by accredited valuers on the basis of estimated open market values on an existing use basis. Such valuations are based on assumptions and judgements which are impacted by a variety of factors including changes in market and other economic conditions.

North West Cambridge is currently under construction and once completed will be subject to an annual valuation based on projected rental and other revenue driven cash flows. Depending on the assumptions used and judgement applied over estimates this may result in a valuation different to the current carrying value at cost.

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

The University has obligations to pay pension benefits to certain employees. The cost of these benefits and the present value of the obligation depend on a number of factors including: life expectancy; salary increases; asset valuations; and the discount rate on corporate bonds. Based on actuarial advice provided, management estimate these factors to determine the net pension obligation in the balance sheet.

Additionally, FRS 102 makes the distinction between a group plan and a multi-employer scheme. A group plan consists of a collection of entities under common control typically with a sponsoring employer. A multi-employer scheme is a scheme for entities not under common control and represents (typically) an industry-wide scheme such as the Universities Superannuation Scheme (USS). The accounting for a multi-employer scheme where the employer has entered into an agreement with the scheme that determines how the employer will fund a deficit results in the recognition of a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and the resulting expense in profit or loss. Management is satisfied that the scheme provided by the USS meets the definition of a multi-employer scheme and has therefore recognized the discounted fair value of the contractual contributions under the funding plan in existence at the date of approving the financial statements.

(vi) *Provisions*

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

Notes to the accounts for the year ended 31 July 2017 (continued)

5 Tuition fees and education contracts	2017	2016	2017	2016
	Group	Group	University	University
	£m	£m	£m	£m
Full-time home / EU students	131.9	122.0	131.9	122.0
Full-time overseas (non-EU) students	87.1	87.8	87.1	87.8
Other course fees	28.5	25.2	15.7	12.4
Research Training Support Grants	28.9	27.8	28.9	27.8
	276.4	262.8	263.6	250.0
6 Funding body grants				
Higher Education Funding Council for England (HEFCE)				
Recurrent grant: teaching	17.9	20.7	17.9	20.7
Recurrent grant: research	121.9	120.0	121.9	120.0
Other revenue grants	7.3	7.5	7.3	7.5
Total revenue grants	147.1	148.2	147.1	148.2
Capital grants recognized in the year	30.9	44.8	30.9	44.8
	178.0	193.0	178.0	193.0
7 Research grants and contracts				
Research councils	146.8	161.1	146.8	161.1
UK based charities	142.4	127.3	142.4	127.2
European Commission	59.2	61.5	59.2	61.5
UK industry	18.9	23.6	18.9	22.2
UK Government	46.1	49.6	46.1	49.3
Other bodies	52.6	45.9	44.1	41.1
	466.0	469.0	457.5	462.4
Total research grants and contracts income includes grants of £8.0m (2016: £7.8m) towards the cost of buildings and £26.7m (2016: £38.6m) for the purchase of equipment.				
8 Examination and assessment services				
Examination fees	371.1	349.2	296.3	276.0
Other examination and assessment services	40.6	42.5	38.5	35.5
	411.7	391.7	334.8	311.5
9 Donations and endowments				
New endowments	30.4	30.3	30.4	28.9
Donations of, and for the purchase of, fixed assets	10.2	9.2	10.2	9.2
Donations of, and for the purchase of, heritage assets	1.7	3.7	1.7	3.7
Other donations with restrictions	25.4	15.0	18.0	8.5
Donations from subsidiary companies	–	–	10.5	5.4
Unrestricted donations	11.4	13.0	10.2	11.6
	79.1	71.2	81.0	67.3
10 Other income				
Other services rendered	44.5	42.4	37.2	33.6
Health and hospital authorities	20.5	19.9	20.5	19.9
Residences, catering, and conferences	12.7	10.4	12.7	10.4
Income from intellectual property	16.7	13.8	4.3	3.5
Rental income	9.5	10.4	9.5	10.5
Grants received (other than those included in notes 6 and 7 above)	4.8	5.0	3.7	4.1
Research and Development Expenditure Credit (RDEC) receivable before deduction of tax	–	1.3	–	1.3
Sundry income	21.5	18.0	18.8	15.5
	130.2	121.2	106.7	98.8

RDEC has previously been claimed from HM Revenue & Customs at a rate of 10% or 11% on qualifying research and development expenditure, and is received net of Corporation Tax (see note 16). The University is not eligible to claim for RDEC in relation to expenditure incurred on or after 1 August 2015.

Notes to the accounts for the year ended 31 July 2017 (continued)

11 Investment income

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

However, the distributions made to unit holders are funded through both investment income generated on the underlying CUEF assets and an element by drawing on the long-term capital growth of the investments. Accordingly, for the purposes of reporting in the financial statements, it is only the investment income (dividends, interest, rental income etc.) received on the underlying CUEF assets which is treated as investment income. The distributions relating to capital growth are reflected in the statement of comprehensive income as a 'gain on investments' and in the balance sheet in non-current asset investments, 'valuation gain on investment'. For the year ended 31 July 2017 distributions by the CUEF which were funded by drawing on the long-term capital gain in the investments was £78.0m (2016: £72.6m) with the balance of the distributions funded by and reported as investment income. This split is outlined in more detail below:

	2017 Group £m	2016 Group £m	2017 University £m	2016 University £m
Income from non-current asset investments:				
Distributions credited to unit holders as income	94.0	91.9	76.0	75.0
Less: distributed from long-term capital gain	(78.0)	(72.6)	(63.1)	(59.2)
Investment income on underlying assets reported per the financial statements	16.0	19.3	12.9	15.8
Income from current asset investments and cash equivalents	1.9	2.0	1.7	2.1
Total investment income	17.9	21.3	14.6	17.9

Credited to:

Group	Total distributions to unit holders 2017 £m	Amounts distributed from capital 2017 £m	Investment income 2017 £m	Investment income 2016 £m
	Permanent endowment reserves	36.7	(35.9)	0.8
Expendable endowment reserves	15.6	(13.3)	2.3	3.1
Restricted reserves	0.7	(0.6)	0.1	0.1
Unrestricted reserves	42.9	(28.2)	14.7	13.2
	95.9	(78.0)	17.9	21.3
University				
Permanent endowment reserves	36.5	(35.7)	0.8	4.8
Expendable endowment reserves	7.1	(5.9)	1.2	1.6
Restricted reserves	0.7	(0.6)	0.1	0.1
Unrestricted reserves	33.4	(20.9)	12.5	11.4
	77.7	(63.1)	14.6	17.9

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

	31 July 2017		31 July 2016	
	£m	%	£m	%
Public equity	1,758.6	59.0%	1,662.1	60.3%
Private investment	395.4	13.2%	327.4	11.9%
Absolute return	353.0	11.8%	360.1	13.1%
Credit	11.8	0.4%	11.5	0.4%
Real assets	337.2	11.3%	305.4	11.1%
Fixed interest / cash	128.4	4.3%	87.4	3.2%
Total value of fund	2,984.4	100.0%	2,753.9	100.0%

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

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

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

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

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

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

Notes to the accounts for the year ended 31 July 2017 (continued)

11 Investment income (continued)

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

	Group 2017 £m	Group 2016 £m	University 2017 £m	University 2016 £m
Non current asset investments (see note 21)	2,689.6	2,564.2	2,161.1	2,093.6
Current asset investments (see note 20) – balances held on behalf of:				
Subsidiary undertakings	–	–	528.5	470.6
Colleges	277.3	176.7	277.3	176.7
Other associated bodies	17.5	13.0	17.5	13.0
Total included in current asset investments	294.8	189.7	823.3	660.3
Total value of units	2,984.4	2,753.9	2,984.4	2,753.9

12 Total income

Consolidated total income is credited to reserves as follows:

	Group year ended 31 July 2017			Group year ended 31 July 2016		
	Endowments £m	Restricted £m	Unrestricted £m	Endowments £m	Restricted £m	Unrestricted £m
Tuition fees and education contracts	–	–	276.4	–	–	262.8
Funding body grants	–	30.9	147.1	–	44.8	148.2
Research grants and contracts	–	7.6	458.4	–	17.4	451.6
Research and Development Expenditure Credit receivable	–	–	–	–	–	1.3
Examination and assessment services	–	–	411.7	–	–	391.7
Publishing services	–	–	310.6	–	–	269.4
Donations and endowments	30.4	29.3	19.4	30.3	20.3	20.6
Other income	–	4.8	125.4	–	5.0	114.9
Investment income	3.1	0.1	14.7	8.0	0.1	13.2
	33.5	72.7	1,763.7	38.3	87.6	1,673.7

Consolidated total income is attributable as follows to the three broad categories defined by FRS 102: revenue, government grants, and non-exchange transactions:

	Group year ended 31 July 2017			Group year ended 31 July 2016		
	Revenue £m	Government grants £m	Non- exchange transactions £m	Revenue £m	Government grants £m	Non- exchange transactions £m
Tuition fees and education contracts	247.5	28.9	–	235.0	27.8	–
Funding body grants	–	178.0	–	–	193.0	–
Research grants and contracts	–	252.1	213.9	–	272.2	196.8
Research and Development Expenditure Credit receivable	–	–	–	–	1.3	–
Examination and assessment services	411.7	–	–	391.7	–	–
Publishing services	310.6	–	–	269.4	–	–
Donations and endowments	–	–	79.1	–	–	71.2
Other income	103.9	4.8	21.5	96.9	5.0	18.0
Investment income	17.9	–	–	21.3	–	–
	1,091.6	463.8	314.5	1,014.3	499.3	286.0

Notes to the accounts for the year ended 31 July 2017 (continued)

13 Staff costs

	2017	2016	2017	2016
	Group	Group	University	University
	£m	£m	£m	£m
Wages and salaries	606.0	572.8	555.3	529.5
Social security costs	61.9	56.9	58.0	52.6
Pension costs:				
Current service cost	132.5	114.2	126.2	108.7
Change in underlying assumptions in calculating USS deficit recovery provision (see note 28)	(1.6)	17.6	(1.2)	17.1
Total pension costs (see note 34)	130.9	131.8	125.0	125.8
	798.8	761.5	738.3	707.9
The average number of staff employed in the year, expressed as full-time equivalents, was:	15,989	15,287		

Remuneration of the Vice-Chancellor

	2017	2016
	£000	£000
Salary for the year	343	323
Backdated increase in respect of the previous year	–	22
Total salary paid in the year	343	345
Taxable benefits in kind	12	4
Total excluding employer pension contributions	355	349
Employer pension contributions	7	4
	362	353

Salary is the contractual salary before adjusting for salary sacrifice arrangements under which, in common with other employees, the Vice-Chancellor sacrificed an amount of pay and the University paid the same amount to the Universities Superannuation Scheme. In addition to the taxable benefits in kind received, the Vice-Chancellor is also provided with subsidized accommodation. This is a non-taxable benefit and as such is not included in the table above.

Remuneration of other higher paid staff

Remuneration for this purpose excludes employer's pension contributions except to the extent that these result from the sacrifice of an element of pay.

	2017	2016
£100,001 - £110,000	109	104
£110,001 - £120,000	102	74
£120,001 - £130,000	47	44
£130,001 - £140,000	46	41
£140,001 - £150,000	27	35
£150,001 - £160,000	38	26
£160,001 - £170,000	24	17
£170,001 - £180,000	16	14
£180,001 - £190,000	6	7
£190,001 - £200,000	8	13
£200,001 - £210,000	12	13
£210,001 - £220,000	12	2
£220,001 - £230,000	3	1
£230,001 - £240,000	2	2
£240,001 - £250,000	7	3
£250,001 - £260,000	3	3
£260,001 - £270,000	1	–
£270,001 - £280,000	–	–
£280,001 - £290,000	1	–
£290,001 - £300,000	1	2
£300,001 - £310,000	1	2
£310,001 - £320,000	–	1
£320,001 - £330,000	–	1
£330,001 - £340,000	1	1
£350,001 - £360,000	2	1
£380,001 - £390,000	–	1
£390,001 - £400,000	–	–
£400,001 - £410,000	1	–
£420,001 - £430,000	1	1
£470,001 - £480,000	1	–
£640,001 - £650,000	1	–

The above statistics include staff engaged in business and commercial activities, including those of Cambridge Assessment and Cambridge University Press. A small number of employees received an adjustment for backdated pay in the period and a small number of staff were eligible for bonuses. Salaries for certain staff working overseas in Cambridge Assessment when expressed in sterling terms have increased owing to exchange rate movements.

As in previous years, the above statistics include additional payments to employees of the University on behalf of NHS bodies.

Notes to the accounts for the year ended 31 July 2017 (continued)

13 Staff costs (continued)**Compensation for loss of office**

Aggregate payments for compensation for loss of office were paid to four members of staff earning in excess of £100,000 per annum in 2016–17 (four in 2015–16):	2017	2016
	£000	£000
Payments in respect of loss of office	535	290

Key management personnel

The total remuneration of the Vice-Chancellor, Pro-Vice-Chancellors, Chief Financial Officer (from 1 May 2017) and Registry for the year, comprising salary and benefits excluding employer pension contributions, was:	1,333	1,090
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14 Analysis of consolidated expenditure by activity

	Staff costs	Other operating expenses	Depreciation	Interest payable	2017 Total	2016 Total
	£m	£m	£m	£m	£m	£m
Academic departments	241.1	71.5	9.9	–	322.5	307.2
Academic services	31.3	13.4	0.9	–	45.6	41.5
Payments to Colleges (see note 37)	–	67.3	–	–	67.3	64.1
Research grants and contracts	204.9	166.1	21.9	–	392.9	377.2
Other activities:						
Examination and assessment services	121.2	207.4	6.9	0.2	335.7	335.7
Publishing services	103.4	187.6	4.2	3.7	298.9	274.4
Other services rendered	12.6	27.7	0.1	–	40.4	38.7
Intellectual property	3.4	4.6	–	–	8.0	9.7
Residences, catering, and conferences	3.0	11.6	–	–	14.6	14.2
Other activities total	243.6	438.9	11.2	3.9	697.6	672.7
Administration and central services:						
Administration	53.4	1.0	1.8	–	56.2	52.6
General educational	2.6	55.9	0.1	–	58.6	58.2
Staff and student facilities	3.0	1.0	–	–	4.0	4.4
Development office	5.8	6.1	–	–	11.9	12.6
Other	0.9	3.1	–	–	4.0	4.0
Administration and central services total	65.7	67.1	1.9	–	134.7	131.8
Premises	17.4	62.1	44.1	–	123.6	100.5
Interest payable on bond liabilities	–	–	–	13.2	13.2	13.2
Pension cost adjustments for USS	(9.5)	–	–	2.2	(7.3)	16.3
Pension cost adjustments for CPS (see note 34)	4.3	–	–	12.1	16.4	9.3
Total per income and expenditure account	798.8	886.4	89.9	31.4	1,806.5	1,733.8

Other operating expenses include:

	2017	2016
	Group	Group
	£000	£000
Auditors' remuneration		
Audit fees payable to the University's external auditors	882	781
Other fees payable to the University's external auditors	23	202
Audit fees payable to other firms	22	26

Payments to trustees

Reimbursement of expenses to two (2016: three) external members of Council	6	5
There were no other payments made to trustees for their services to the University.		

These amounts include related irrecoverable VAT.

15 Interest and other finance costs

	2017 Group	2016 Group	2017 University	2016 University
	£m	£m	£m	£m
Interest payable on bond liabilities (see note 27)	13.2	13.2	13.2	13.2
Interest on pension liabilities (see note 28)	17.4	18.8	17.3	18.7
Interest paid on other retirement benefit liabilities (see note 29)	0.6	0.7	0.6	0.7
Other interest payable	0.2	0.4	0.3	0.3
	31.4	33.1	31.4	32.9

16 Taxation

UK Corporation Tax	–	0.3	–	0.3
Foreign taxes	4.1	2.7	0.8	1.4
	4.1	3.0	0.8	1.7

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

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

Commercial trading activities undertaken by the University are operated through its subsidiary companies. This income will attract applicable VAT and the profits are liable to Corporation Tax. However, the taxable profits made by these companies are covenanted to the University and paid under Gift Aid which negates the liability.

Due to its exempt charity status the charge for UK Corporation Tax in 2015–16 is solely in respect of Research and Development Expenditure Credit grants receivable (see note 10). The charge for foreign taxes is primarily in respect of overseas subsidiaries which are subject to taxation in their country of residence.

Notes to the accounts for the year ended 31 July 2017 (continued)

17 Segment information

The group's reportable segments are:

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

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

	HEI £m	Assessment £m	Press £m	CUEF £m	Trusts and other £m	Eliminations and adjustments £m	Group £m
Year ended 31 July 2017							
Total income							
External	1,075.6	412.8	318.3	422.7	52.0	(411.5)	1,869.9
Intersegment	104.2	7.6	0.6	–	118.9	(231.3)	–
Total	1,179.8	420.4	318.9	422.7	170.9	(642.8)	1,869.9
Surplus for the year	325.4	104.6	10.3	422.7	63.4	(460.0)	466.4
Included in surplus for the year:							
Investment income	71.9	7.7	1.3	12.1	15.0	(90.1)	17.9
Depreciation and amortization	(78.2)	(19.0)	(15.4)	–	(0.6)	–	(113.2)
Interest payable	(27.2)	(0.6)	(3.7)	–	–	0.1	(31.4)
Gain on investments	245.7	26.5	1.8	410.5	55.2	(332.6)	407.1
Additions to intangible assets, fixed assets, Heritage assets and investment property	332.6	118.8	15.8	–	1.2	(0.8)	467.6
Assets	5,111.8	734.0	326.5	2,984.4	526.1	(2,821.9)	6,860.9
Liabilities	(1,384.4)	(138.6)	(240.5)	–	(78.4)	(171.9)	(2,013.8)
Net assets	3,727.4	595.4	86.0	2,984.4	447.7	(2,993.8)	4,847.1
Year ended 31 July 2016							
Total income							
External	1,066.4	394.6	274.4	235.6	49.6	(221.0)	1,799.6
intersegment	90.2	7.2	0.6	–	105.8	(203.8)	–
Total	1,156.6	401.8	275.0	235.6	155.4	(424.8)	1,799.6
Surplus for the year	206.6	72.5	–	235.6	31.3	(261.4)	284.6
Included in surplus for the year:							
Investment income	71.8	7.4	0.8	15.5	13.2	(87.4)	21.3
Depreciation and amortization	(67.6)	(22.1)	(9.2)	–	(0.3)	(1.2)	(100.4)
Interest payable	(28.3)	(0.9)	(3.9)	–	–	–	(33.1)
Gain on investments	114.2	10.5	0.9	220.1	24.3	(148.2)	221.8
Additions to intangible assets, fixed assets, heritage assets and investment property	348.2	58.9	17.2	–	1.0	(0.8)	424.5
Assets	4,831.7	645.5	253.2	2,753.9	467.4	(2,667.0)	6,284.7
Liabilities	(1,428.8)	(131.4)	(243.9)	–	(76.3)	(49.5)	(1,929.9)
Net assets	3,402.9	514.1	9.3	2,753.9	391.1	(2,716.5)	4,354.8

Notes to the accounts for the year ended 31 July 2017 (continued)

17 Segment information (continued)

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

	2017 £m	2016 £m		
Total income				
Elimination of intersegment income	(231.3)	(203.8)		
Exclude investment gain element of CUEF total return	(410.5)	(220.1)		
Exclude CUEF investment income attributable to external investors	(1.0)	(0.9)		
Total eliminations and adjustments	(642.8)	(424.8)		
Surplus for the year				
Eliminate CUEF surplus recognized in other segments or attributable to external investors	(422.7)	(235.6)		
Eliminate transfers from other segments to HEI based on surpluses	(37.2)	(23.9)		
Apply group accounting policy to Press operational property: depreciation	–	(1.0)		
Elimination of intersegment funding commitments	(0.3)	(0.3)		
Eliminate intersegment surplus on transfer of fixed assets	(0.7)	(0.6)		
Eliminate other intersegment balances	0.9	–		
Total eliminations and adjustments	(460.0)	(261.4)		
Assets and liabilities				
	Assets	Liabilities	Net assets	Net assets
	2017	2017	2017	2016
	£m	£m	£m	£m
Eliminate CUEF assets recognized in other segments or attributable to external investors	(2,689.6)	(294.8)	(2,984.4)	(2,753.9)
Apply group accounting policy to Press operational property: net book value	–	–	–	43.0
Eliminate accrual for intersegment funding commitments	–	17.0	17.0	17.3
Eliminate intersegment surplus on transfers of fixed assets	(20.4)	–	(20.4)	(19.6)
Eliminate investments in subsidiaries	(6.0)	–	(6.0)	(3.3)
Eliminate intersegment balances	(105.9)	105.9	–	–
Total eliminations and adjustments	(2,821.9)	(171.9)	(2,993.8)	(2,716.5)

18 Intangible assets and goodwill

Group	Software £m	Goodwill £m	Others £m	2017	2016
				Total £m	Total £m
Cost					
At 1 August	183.9	16.1	9.1	209.1	183.8
Additions	24.3	–	0.5	24.8	26.0
Disposals	(0.8)	–	–	(0.8)	(1.0)
Currency adjustments	0.4	0.1	–	0.5	0.3
At 31 July	207.8	16.2	9.6	233.6	209.1
Accumulated amortization					
At 1 August	110.9	14.5	8.3	133.7	111.3
Charge for the year	21.9	1.0	0.4	23.3	23.3
Eliminated on disposals	(0.4)	–	–	(0.4)	(1.0)
Currency adjustments	0.4	–	–	0.4	0.1
At 31 July	132.8	15.5	8.7	157.0	133.7
Net book value	75.0	0.7	0.9	76.6	75.4
University					
	Software	Goodwill	Others	2017	2016
	£m	£m	£m	Total	Total
	£m	£m	£m	£m	£m
Cost					
At 1 August	175.7	1.1	13.1	189.9	165.1
Additions	23.6	–	0.5	24.1	25.8
Disposals	(0.8)	–	–	(0.8)	(1.0)
Currency adjustments	0.1	–	–	0.1	–
At 31 July	198.6	1.1	13.6	213.3	189.9
Accumulated amortization					
At 1 August	103.3	1.1	11.6	116.0	94.9
Charge for the year	22.8	–	0.8	23.6	22.1
Eliminated on disposals	(0.4)	–	–	(0.4)	(1.0)
Currency adjustments	0.1	–	–	0.1	–
At 31 July	125.8	1.1	12.4	139.3	116.0
Net book value	72.8	–	1.2	74.0	73.9

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

Notes to the accounts for the year ended 31 July 2017 (continued)

19 Fixed assets		Assets in				2017	2016
Group	Land	Buildings	construction	Equipment	Total	Total	
	£m	£m	£m	£m	£m	£m	
Cost							
At 1 August	421.0	1,602.5	223.3	329.2	2,576.0	2,340.9	
Additions	–	30.6	253.5	45.0	329.1	247.3	
Transfers	1.3	104.1	(106.9)	1.5	–	–	
Transfers (to) / from investment properties	(0.2)	1.8	–	–	1.6	–	
Disposals	–	(3.0)	–	(5.4)	(8.4)	(12.5)	
Currency adjustments	–	0.6	–	(1.4)	(0.8)	0.3	
At 31 July	422.1	1,736.6	369.9	368.9	2,897.5	2,576.0	
Accumulated depreciation							
At 1 August	–	92.1	–	234.9	327.0	260.6	
Charge for the year	–	50.0	–	39.9	89.9	77.1	
Transfers (to) / from investment properties	–	(0.2)	–	–	(0.2)	–	
Elimination on disposals	–	(2.6)	–	(5.3)	(7.9)	(10.8)	
Currency adjustments	–	0.3	–	0.2	0.5	0.1	
At 31 July	–	139.6	–	269.7	409.3	327.0	
Net book value							
At 31 July	422.1	1,597.0	369.9	99.2	2,488.2	2,249.0	
At 1 August	421.0	1,510.4	223.3	94.3	2,249.0	2,080.3	
University							
	Land	Buildings	Assets in	Equipment	2017	2016	
	£m	£m	construction	£m	Total	Total	
			£m		£m	£m	
Cost							
At 1 August	421.0	1,595.1	224.1	325.5	2,565.7	2,331.3	
Additions	–	30.4	254.3	43.1	327.8	245.9	
Transfers	1.3	104.0	(106.8)	1.5	–	–	
Transfers (to) / from investment properties	(0.2)	1.8	–	–	1.6	–	
Disposals	–	(0.8)	–	(5.0)	(5.8)	(11.7)	
Currency adjustments	–	0.5	–	(1.6)	(1.1)	0.2	
At 31 July	422.1	1,731.0	371.6	363.5	2,888.2	2,565.7	
Accumulated depreciation							
At 1 August	–	89.1	–	233.5	322.6	256.6	
Charge for the year	–	49.6	–	37.3	86.9	76.2	
Transfers (to) / from investment properties	–	(0.2)	–	–	(0.2)	–	
Elimination on disposals	–	(0.4)	–	(5.0)	(5.4)	(10.3)	
Currency adjustments	–	(0.1)	–	0.2	0.1	0.1	
At 31 July	–	138.0	–	266.0	404.0	322.6	
Net book value							
At 31 July	422.1	1,593.0	371.6	97.5	2,484.2	2,243.1	
At 1 August	421.0	1,506.0	224.1	92.0	2,243.1	2,074.7	
20 Heritage assets			2017	2016	2017	2016	
			Group	Group	University	University	
			£m	£m	£m	£m	
Opening balance			65.1	60.9	65.1	60.9	
Additions in the year			2.2	4.2	2.2	4.2	
Closing balance			67.3	65.1	67.3	65.1	
The University holds and conserves certain collections, artefacts and other assets of historical, artistic or scientific importance. Most of these are housed in the University's nationally accredited museums and collections and in its libraries, providing a valuable research and educational resource locally, nationally, and internationally as well as an unrivalled opportunity to present the University's work to a wide audience. Other collections are held in academic departments or are on display as public art. Major collections include those held by the University Library, a legal deposit, the Botanic Garden, and the Fitzwilliam Museum.							
In respect of its major collections, the University's practice, in accordance with the national accreditation standards, is: to preserve, conserve, and manage the objects in its care; to augment the collections where appropriate and within the resources available; to enable and encourage access to and use of the collections for teaching and research; and to enable wide access to and engagement with the collections by members of the public.							
As stated in the statement of principal accounting policies, heritage assets acquired since 1 August 1999 have been capitalized. 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 capitalized. As a result the total included in the balance sheet is partial.							
Additions for the current and previous four years were as follows:			2017	2016	2015	2014	
			£m	£m	£m	£m	
Acquisitions purchased with specific donations			1.3	1.2	1.1	0.4	
Value of acquisitions by donation			0.4	2.5	0.4	0.1	
Total acquired by, or funded by, donations			1.7	3.7	1.5	0.5	
Acquisitions purchased with University funds			0.5	0.5	–	0.5	
Total acquisitions capitalized			2.2	4.2	1.5	1.0	

Notes to the accounts for the year ended 31 July 2017 (continued)

21 Non-current asset investments	Group 2017 £m	Group 2016 £m	University 2017 £m	University 2016 £m
Opening balance	2,904.4	2,688.2	2,439.8	2,256.1
North West Cambridge: additions	111.5	141.8	111.5	141.8
North West Cambridge: disposals at cost and transfers to fixed assets	–	(23.7)	–	(23.7)
Other additions in the year	69.8	75.2	71.3	68.2
Other disposals in the year	(317.7)	(197.7)	(300.2)	(181.6)
Other transfers (to) / from other balance sheet accounts	(1.9)	(1.2)	(1.9)	(1.2)
Valuation gains on investments	407.1	221.8	325.9	180.2
Closing balance	3,173.2	2,904.4	2,646.4	2,439.8
Represented by:				
CUEF units (see note 11)	2,689.6	2,564.2	2,161.1	2,093.6
North West Cambridge development	332.1	220.6	332.1	220.6
Other property	75.0	67.4	75.0	67.4
Securities	21.7	21.4	11.3	9.8
Spin-out and similar companies (see note 35)	49.5	26.3	31.4	16.3
Investments in subsidiary undertakings	–	–	34.8	31.4
Other	5.3	4.5	0.7	0.7
	3,173.2	2,904.4	2,646.4	2,439.8
Phase 1 of the North West Cambridge development, currently under construction, includes accommodation for University staff and students and for others, infrastructure and community facilities. Individual buildings considered at completion to have a primary purpose of supporting education are transferred to fixed assets.				
22 Stocks and work in progress	Group 2017 £m	Group 2016 £m	University 2017 £m	University 2016 £m
Goods for resale	25.2	25.0	20.9	19.1
Pre-publication costs and other work in progress	23.1	27.0	21.5	25.2
Other stocks	1.3	1.3	1.3	1.3
	49.6	53.3	43.7	45.6
23 Trade and other receivables	Amounts due within one year			
Research grants recoverable	105.6	100.1	105.4	100.1
Amounts due from subsidiary undertakings	–	–	30.2	39.4
Debtors re. examination and assessment services	88.4	84.5	86.3	82.7
Debtors re. publishing services	112.7	99.8	88.6	78.8
Other debtors	73.2	83.2	58.7	68.0
	379.9	367.6	369.2	369.0
24 Current asset investments				
CUEF units held on behalf of other entities (see note 11)	294.8	189.7	823.3	660.3
Securities	–	–	–	–
Money market investments	43.5	40.6	43.5	22.6
Other	6.5	11.4	6.5	11.4
	344.8	241.7	873.3	694.3
25 Cash and cash equivalents				
Money market investments with maturity less than three months	194.3	240.1	194.3	240.1
Cash at bank and in hand and with investment managers	87.0	88.1	51.6	51.6
	281.3	328.2	245.9	291.7
26 Creditors: amounts falling due within one year				
Bank overdraft	–	33.9	–	33.9
Current portion of long-term bank loan	0.8	0.9	0.8	0.9
Finance leases	1.3	1.3	1.3	1.3
Research grants received in advance	192.7	190.5	192.7	189.1
Amounts due to subsidiary undertakings	–	–	11.7	20.0
Creditors re. examination and assessment services	85.1	81.1	63.8	59.3
Creditors re. publishing services	111.3	94.7	99.5	84.2
Other creditors	206.1	194.4	178.2	165.4
Investments and cash equivalents held on behalf of subsidiary undertakings	–	–	557.7	477.9
Investments and cash equivalents held on behalf of Colleges and other associated bodies	298.7	195.5	298.7	195.5
	896.0	792.3	1,404.4	1,227.5

Notes to the accounts for the year ended 31 July 2017 (continued)

	Group 2017 £m	Group 2016 £m	University 2017 £m	University 2016 £m
27 Creditors: amounts falling due after more than one year				
Bond liabilities	342.5	342.5	342.5	342.5
Bank loans	0.7	1.7	–	0.5
Finance leases	2.6	3.9	2.6	3.9
Accruals and deferred income	10.5	10.6	–	–
	356.3	358.7	345.1	346.9

On 17 October 2012 the University issued £350m of 3.75% unsecured Bonds due October 2052 (the 'Bonds'). 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 commencing on 17 April 2013. The Bonds are listed on the London Stock Exchange. Unless previously redeemed, the Bonds will be redeemed at their principal amount of £350m on 17 October 2052. 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 amortized cost using the effective interest rate method. Under this method the discount at which the Bonds were issued and the transaction cost are accounted for as additional interest expense over the term of the Bonds.

28 Pension liabilities			Defined benefit total £m	USS deficit recovery £m	Total 2017 £m	Total 2016 £m
Group	CPS £m	Press £m				
Opening balance	505.0	124.1	629.1	127.4	756.5	550.5
Movement in year:						
Current service cost	31.4	2.0	33.4	–	33.4	26.4
Contributions	(28.2)	(5.3)	(33.5)	(7.9)	(41.4)	(38.8)
Administration expenses	1.0	–	1.0	–	1.0	0.5
Interest on liability	12.2	3.0	15.2	2.2	17.4	18.8
Currency adjustments	–	0.1	0.1	–	0.1	0.7
Change in underlying assumptions	–	–	–	(1.6)	(1.6)	17.6
Actuarial (gain) / loss	1.0	(27.3)	(26.3)	–	(26.3)	180.8
Closing balance	522.4	96.6	619.0	120.1	739.1	756.5
University						
Opening balance	505.0	124.1	629.1	121.8	750.9	545.3
Movement in year:						
Current service cost	31.4	2.0	33.4	–	33.4	26.4
Contributions	(28.2)	(5.3)	(33.5)	(7.6)	(41.1)	(38.6)
Administration expenses	1.0	–	1.0	–	1.0	0.5
Interest on liability	12.2	3.0	15.2	2.1	17.3	18.7
Currency adjustments	–	0.1	0.1	–	0.1	0.7
Change in underlying assumptions	–	–	–	(1.2)	(1.2)	17.1
Actuarial (gain) / loss	1.0	(27.3)	(26.3)	–	(26.3)	180.8
Closing balance	522.4	96.6	619.0	115.1	734.1	750.9

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

The liability in respect of deficit recovery payments to the Universities Superannuation Scheme (USS) represents the present value of estimated future employer contributions to the USS to the extent that, under the schedule of contributions agreed between the USS and participating employers in July 2015, they are payments towards the recovery of the deficit identified in the actuarial valuation as at 31 March 2014. For this purpose estimated deficit recovery payments over the period of the schedule of contributions ending in March 2031 have been discounted at 1.89% (2016: 1.75%). The movements described as "change in underlying assumptions" include the impact of movements in discount rates. The resulting decrease in provision in 2016–17 is included in staff costs (see note 13).

29 Other retirement benefits liabilities

Group and University	2017 £m	2016 £m
Opening balance	22.4	19.8
Movement attributable to the year:		
Current service cost less benefits paid	0.3	0.3
Contributions	(1.0)	(0.8)
Other finance cost	0.6	0.7
Currency adjustments	0.1	1.0
Actuarial loss	–	1.4
Closing balance	22.4	22.4

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

Notes to the accounts for the year ended 31 July 2017 (continued)

30 Endowment reserves

Group	Permanent	Expendable	2017	2016
	£m	£m	Total £m	Total £m
Balance as at 1 August	1,045.8	473.4	1,519.2	1,414.0
New endowments received	28.1	2.3	30.4	30.4
Transfers	(0.1)	0.1	–	–
Investment income	0.8	2.3	3.1	8.0
Expenditure	(32.1)	(19.7)	(51.8)	(49.7)
Valuation gains on investments	159.9	67.1	227.0	116.5
Balance as at 31 July	1,202.4	525.5	1,727.9	1,519.2
Capital	1,042.3	499.3	1,541.6	1,357.1
Unspent income	160.1	26.2	186.3	162.1
Balance as at 31 July	1,202.4	525.5	1,727.9	1,519.2
Representing:				
Trust and Special Funds:				
Professorships, Readerships, and Lectureships	608.5	75.5	684.0	591.5
Scholarships and bursaries	149.2	20.2	169.4	151.7
Other	369.0	155.0	524.0	506.6
Gates Cambridge Trust	–	268.7	268.7	239.6
Examination Board restricted funds	–	6.1	6.1	5.5
General endowments	75.7	–	75.7	24.3
Group total	1,202.4	525.5	1,727.9	1,519.2
University				
Balance as at 1 August	1,040.2	228.7	1,268.9	1,176.4
New endowments received	28.1	2.3	30.4	28.9
Income receivable from endowment asset investments	0.8	1.2	2.0	6.4
Transfers	(0.1)	0.1	–	–
Expenditure	(31.8)	(9.9)	(41.7)	(38.8)
Valuation gains on investments	159.1	30.6	189.7	96.0
Balance as at 31 July	1,196.3	253.0	1,449.3	1,268.9
Capital	1,036.2	226.8	1,263.0	1,106.4
Unspent income	160.1	26.2	186.3	162.5
Balance as at 31 July	1,196.3	253.0	1,449.3	1,268.9

31 Restricted reserves

Group	Unspent capital grants	Unspent research grants	Specific donations	2017 Total	2016 Total
	£m	£m	£m	£m	£m
Balance as at 1 August	22.9	20.7	35.6	79.2	81.9
Donations and grants recognized in the year	38.4	7.6	26.6	72.6	87.5
Investment income	–	–	0.2	0.2	0.1
Expenditure	–	(7.0)	(19.0)	(26.0)	(23.0)
Capital grants spent	(43.2)	–	–	(43.2)	(68.5)
Valuation gains on investments	–	–	2.7	2.7	1.2
Balance as at 31 July	18.1	21.3	46.1	85.5	79.2
University					
Balance as at 1 August	22.9	20.7	34.9	78.5	81.5
Donations and grants recognized in the year	38.4	7.6	18.0	64.0	80.1
Investment income	–	–	0.1	0.1	0.1
Expenditure	–	(7.0)	(10.8)	(17.8)	(15.8)
Capital grants spent	(43.2)	–	–	(43.2)	(68.5)
Valuation gains on investments	–	–	2.7	2.7	1.1
Balance as at 31 July	18.1	21.3	44.9	84.3	78.5

Notes to the accounts for the year ended 31 July 2017 (continued)

32 Non-controlling interests

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

	2017	2016
	Group	Group
	£m	£m
Opening balance as at 1 August	0.9	0.8
Total comprehensive income attributable to non-controlling interests	0.4	0.3
Acquisition of non-controlling interest	(0.5)	–
Dividends paid to non-controlling interests	(0.3)	(0.2)
Closing balance as at 31 July	0.5	0.9

During the year Cambridge University Press acquired the remaining 40% share of its non-controlling interest in Cambridge Learning Limited.

For the year ended 31 July 2017, the total comprehensive income attributable to non-controlling interests was £0.4m (2016: £0.3m) and the unrestricted reserves attributable to non-controlling interests was £0.5m (2016: £0.9m).

33 Capital commitments and contingent liabilities

	Group	Group
	2017	2016
	£m	£m
Commitments for capital expenditure:		
Commitments contracted at 31 July	336.1	465.1
Authorized but not contracted at 31 July	23.1	175.4
Commitments for capital calls on investments:	417.9	357.4

The Group operates across a variety of different geographical locations with activities which are subject to local tax and regulatory compliance requirements. Currently the Group is subject to a review by overseas tax authorities the outcome of which cannot readily be foreseen and which is not considered likely to result in a material adverse impact to the financial position of the Group. At this stage no reliable estimate of the impact, if any, on the Group can be made.

34 Pension schemes

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

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

The assets of the schemes are held in separate trustee-administered funds. The schemes are defined benefit schemes, with the exception of USS which is a hybrid pension scheme effective from 1 October 2016, and are each valued every three years using the projected unit method by professionally qualified actuaries, the rates of contribution payable being determined by the trustees on the advice of the actuaries.

Universities Superannuation Scheme (USS)

The University participates in the Universities Superannuation Scheme. With effect from 1 October 2016, the scheme changed from a defined benefit only pension scheme to a hybrid pension scheme, providing defined benefits (for all members), as well as defined contribution benefits. Because of the mutual nature of the scheme, the scheme's assets are not attributed to individual institutions and a scheme-wide contribution rate is set. The University is therefore exposed to actuarial risks associated with other institutions' employees and is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis. As required by section 28 of FRS 102 'Employee Benefits', the University therefore accounts for the scheme as if it were a defined contribution scheme.

The latest triennial actuarial valuation of the scheme was at 31 March 2014.

The 2014 valuation was the third valuation for USS under the scheme-specific funding regime introduced by the Pensions Act 2004, which requires schemes to adopt a statutory funding objective to have sufficient and appropriate assets to cover their technical provisions. At 31 March 2014, the value of the assets of the scheme was £41,605m and the value of the scheme's technical provisions was £46,900m indicating a deficit of £5,295m. The assets therefore were sufficient to cover 89% of the benefits which had accrued to members after allowing for expected future increases in earnings.

The scheme's trustees have determined a recovery plan to pay off the shortfall shown by the 31 March 2014 valuation by 31 March 2031; under the recovery plan the University's contribution rate increased from 16% to 18% of pensionable pay with effect from 1 April 2016. The contribution rate will be reviewed as part of each triennial valuation and may be reviewed more frequently.

The recovery plan determines how each employer within the scheme will fund the shortfall shown by the 2014 valuation. The University recognizes a liability for the present value of estimated deficit contributions payable in future periods under the recovery plan (see note 28).

The amount included in staff costs represents contributions payable to the scheme in respect of the accounting period, adjusted in respect of movements in the estimate of future deficit contributions payable.

Notes to the accounts for the year ended 31 July 2017 (continued)

34 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 for funding purposes as at 31 July 2015. The results showed the actuarial value of the scheme's assets as £551m. These were insufficient to cover the scheme's past service liabilities of £612m; the scheme had a deficit of £61m and was 90% funded.

Since 1 August 2013 employer contributions have been set at 11.5% of pensionable pay for existing members at 31 December 2012 and 5.8% of pensionable pay (together with contributions at 5.0% to a separate defined contribution arrangement) for new entrants from 1 January 2013. In addition fixed employer contributions totalling £14.6m per annum are payable over the period from 1 August 2011 to 31 January 2019. These payments are subject to review following the next funding variation, due as at 31 July 2018.

CPS: Pension costs under FRS 102

The liabilities of the plan have been calculated for the purposes of FRS102 based on the calculations previously undertaken for the funding actuarial valuation as at 31 July 2015, allowing for the different assumptions required under FRS102 and taking fully into consideration changes in the plan benefit structure and membership since that date. The principal assumptions used by the actuary were:

	2017	2016
Discount rate	2.55%	2.40%
Rate of increase in salaries	4.10%	3.60%
Rate of increase in pensions in deferment	3.35%	2.85%
Rate of increase in pensions in payment	3.35%	2.85%
Mortality – equivalent life expectancy for members reaching the age of 65:		
Males currently aged 65	86	86
Males currently aged 45	88	88
Females currently aged 65	89	90
Females currently aged 45	91	91

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

	Present value of defined benefit obligation		Fair value of scheme assets		Net liability recognized in the balance sheet	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Opening	(1,081.9)	(901.9)	576.9	551.4	(505.0)	(350.5)
Current service cost	(31.5)	(24.5)	–	–	(31.5)	(24.5)
Administrative expenses paid	–	–	(1.0)	(0.5)	(1.0)	(0.5)
Employer contributions	–	–	28.2	28.1	28.2	28.1
Contributions by members	(0.6)	(0.6)	0.6	0.6	–	–
Benefits paid	21.7	21.6	(21.7)	(21.6)	–	–
Interest income / (expense)	(26.1)	(32.1)	13.9	19.7	(12.2)	(12.4)
Remeasurement gains / (losses):						
Actuarial losses	(64.1)	(144.4)	–	–	(64.1)	(144.4)
Expected less actual plan expenses	–	–	(0.1)	(0.5)	(0.1)	(0.5)
Return on assets excluding interest	–	–	63.2	(0.3)	63.2	(0.3)
Closing defined benefit obligation	(1,182.5)	(1,081.9)	660.0	576.9	(522.5)	(505.0)

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

The total cost recognized in expenditure was:

Current service cost	31.5	24.5
Administrative expenses	1.0	0.5
Interest cost	12.2	12.4
	44.7	37.4

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

Equities and hedge funds	70.6%	73.5%
Bonds and cash	19.4%	15.9%
Property	10.0%	10.6%
	100.0%	100.0%

The return on the scheme's assets was:

Interest income	13.9	19.7
Return on assets excluding interest income	63.2	(0.3)
	77.1	19.4

Notes to the accounts for the year ended 31 July 2017 (continued)

34 Pension schemes (continued)**Cambridge University Press UK defined benefit schemes (PCPF and PSSPS)****Triennial valuation of the schemes**

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

Pension costs under FRS 102

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

	2017	2016
Discount rate	2.55%	2.40%
Rate of increase in salaries – schemes are now on frozen current salary basis	0.00%	0.00%
Rate of increase in pensions in deferment	3.55%	3.35%
Rate of increase in pensions in payment	3.55%	3.35%
Mortality – equivalent life expectancy for members at age 60:		
Males	87	87
Females	89	89

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

	Present value of defined benefit obligation		Fair value of scheme assets		Net liability recognized in the balance sheet	
	2017	2016	2017	2016	2017	2016
	£m	£m	£m	£m	£m	£m
Opening	(344.5)	(299.0)	225.2	214.2	(119.3)	(84.8)
Current service cost	(1.8)	(1.9)	–	–	(1.8)	(1.9)
Employer contributions	–	–	5.3	6.1	5.3	6.1
Contributions by members	(0.1)	(0.2)	0.1	0.2	–	–
Benefits paid	11.1	11.0	(11.1)	(11.0)	–	–
Interest income / (expense)	(8.2)	(10.4)	5.3	7.5	(2.9)	(2.9)
Remeasurement gains / (losses):						
Actuarial gains / (losses)	6.7	(44.0)	17.1	8.2	23.8	(35.8)
Closing defined benefit obligation	(336.8)	(344.5)	241.9	225.2	(94.9)	(119.3)

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

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

Current service cost	1.8	1.9
Interest cost	2.9	2.9
	4.7	4.8

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

Equities	39.1%	37.8%
Gilts	19.5%	20.7%
Property	6.7%	6.8%
Cash and annuities	0.6%	0.7%
Diversified growth fund	34.1%	34.0%
	100.0%	100.0%

The return on the scheme's assets was:

Interest income (£m)	5.3	7.5
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Notes to the accounts for the year ended 31 July 2017 (continued)

34 Pension schemes (continued)

The University also has a smaller number of staff in other pension schemes, including the National Health Service Pension Scheme (NHSPS). Further disclosures are not given as the balances and movements are not material.

The total group pension cost for the year (see note 13) was:

	Employer	Provisions	Total	Employer	Provisions	Total
	contributions	(note 28)		contributions	(note 28)	
	2017	2017	2017	2016	2016	2016
	£m	£m	£m	£m	£m	£m
USS	95.0	(9.5)	85.5	86.7	13.0	99.7
CPS	29.5	4.2	33.7	28.1	(3.1)	25.0
PCPF	2.4	(0.8)	1.6	2.7	(1.0)	1.7
PSSPS	2.8	(2.6)	0.2	3.4	(3.2)	0.2
NHSPS	2.3	–	2.3	2.2	–	2.2
Other pension schemes	7.5	0.1	7.6	3.0	–	3.0
	139.5	(8.6)	130.9	126.1	5.7	131.8

35 Principal subsidiary and associated undertakings and other significant investments

The following undertakings were subsidiary undertakings during the year ended 31 July 2017. 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 in Education in Singapore Limited	a	Research and development
Cambridge Enterprise Limited		Consultancy and commercial exploitation of intellectual property
IFM Education and Consultancy Services Limited		Consultancy and commercial exploitation of intellectual property
Cambridge Investment Limited		Land development
Cambridge Investment Management Limited		Investment management
Cambridge Sustainability Ltd		Sustainability leadership programmes
Cambridge Institute for Sustainability Leadership (Australia)	b	Sustainability leadership programmes
Cambridge Institute for Sustainability Leadership (South Africa) NPC	c	Sustainability leadership programmes
Cambridge Institute for Sustainability Leadership (Belgium)	d	Sustainability leadership programmes
Cambridge University Technical Services Limited		Consultancy and commercial exploitation of intellectual property
The Dennis S. Avery and Sally Tsui Wong-Avery Endowment Trust	e	Advancement of education and research in cosmology at the University
Fitzwilliam Museum (Enterprises) Limited		Publication of fine art books and sale of museum merchandise
JBS Executive Education Limited		Corporate education services
Lynxvale Limited		Construction and development services
University of Cambridge Dental Practice Limited	f	Dental services
UTS Cambridge		Primary school education
Cambridge ClassServer LLP	g	Development and commercialization of digital educational material for China
English Language iTutoring Limited	h	Commercialization of provision of automated tutoring and assessment in learning of English as a foreign language
Portal Estate Management		Management and maintenance of the North West Cambridge estate
Core Sustainable Heat Management Limited		North West Cambridge estate hot water and heating services
Lodge Property Services Ltd		North West Cambridge estate letting and accommodation services
Storeys Field Community Trust	i	Operational management services for the North West Cambridge estate community centre
Associated Trusts	e	Provision of scholarships, grants, and other support for the education of overseas students in the University
Cambridge Commonwealth, European, and International Trust		
Gates Cambridge Trust		
Malaysian Commonwealth Studies Centre in Cambridge		
Cambridge Assessment subsidiary undertakings		
Cambridge Assessment Overseas Limited		Overseas office services
Cambridge Assessment Singapore	j	Overseas office services
Cambridge Avaliacao Representacao e Promocao Ltda	k	Overseas office services
Cambridge Consulting (Beijing) Co. Ltd	l	Overseas office services
Cambridge Assessment Inc.	m	Overseas office services
Cambridge English (Aus)	n	Examination services
Cambridge Boxhill Language Pty Limited	n	Examination services
Cambridge Michigan Language Assessment LLC (USA)	o	Examination services
Cambridge Assessment India Private Limited	p	Overseas office services
Cambridge Assessment Pakistan Private Limited Fundacion UCLES	q	Overseas office services
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

Notes to the accounts for the year ended 31 July 2017 (continued)

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

Cambridge University Press subsidiary undertakings	s	
Academic Journal Publishing Pty Limited	n	Intermediate holding company
Australian Academic Press Pty Limited	n	Non-trading
Cambridge Daigaku Shuppan KK	t	Sales support office for the Japanese market
Cambridge Knowledge (China) Limited	u	Sales support office for the Chinese market
Cambridge University Press (Greece) MEPE	v	Sales support office for the Greek, Cypriot, and Mediterranean market
Cambridge University Press (Holdings) Limited		Multi-activity holding company
Cambridge University Press India Private Limited	p	Academic and educational book publisher and distributor for India
Cambridge University Press Nigeria Limited	w	Educational book publisher and distributor for Nigeria
Cambridge University Press Operations Limited		Publishing services company
Cambridge University Press Satış ve Dağıtım Ticaret Limited Şirketi	x	Distribution company for Turkey
Cambridge University Press Turkey Satış Destek Limited Sirketi	x	Representative office
Cambridge University Press South Africa Proprietary Limited	y	Academic and educational book publisher and distributor for South Africa
Cambridge Learning Limited		Non-trading
Editorial Edicambridge Cia Ltda	z	Sales support office for the Ecuadorian market
Digital Services Cambridge Limited		Software development, infrastructure, and business services
ELT Trading SA de CV	aa	Distribution company (Mexico and Latin America)
HOTmaths Pty Limited	ab	Development and commercialization of web-based maths digital learning management systems
United Publishers Services Limited	u	Non-trading
Oncoweb Limited		Non-trading intermediate holding company
Cambridge-Obeikan Company Limited	ac	Academic and educational book distributor

- a Cambridge Centre for Advanced Research in 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 (see note 36).
- f The University of Cambridge Dental Practice Limited was disposed of on 22 December 2016.
- g Cambridge ClassServer LLP is a limited liability partnership registered in England and Wales, in which the University has a two thirds interest acting through Cambridge Assessment and Cambridge University Press.
- h English Language iTutoring Limited is a limited company registered in England and Wales, in which the University has a 50% interest acting through Cambridge Assessment and Cambridge University Press.
- i 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.
- j Cambridge Assessment Singapore is incorporated in Singapore.
- k Cambridge Avaliacao Representacao e Promocao Ltda is incorporated in Brazil.
- l Cambridge Consulting (Beijing) Co. Ltd is incorporated in China.
- m Cambridge Assessment Inc is a United States non-stock non-profit corporation.
- n Cambridge English (Aus), Cambridge Boxhill Language Pty Limited, Academic Journal Publishing Pty Limited and Australian Academic Press Pty Limited are incorporated in Australia.
- o Cambridge Michigan Language Assessment LLC (USA) is 65% owned by Cambridge Assessment Inc and is incorporated in the United States.
- p Cambridge Assessment India Private Limited and Cambridge University Press India Private Limited are incorporated in India.
- q Cambridge Assessment Pakistan Private Limited is incorporated in Pakistan.
- r Fundacion UCLES is incorporated in Spain.
- s Cambridge University Press subsidiary undertakings have an accounting reference date of 30 April for commercial reasons, with the exceptions of the companies incorporated in India (31 March) and Mexico (31 December).
- t Cambridge Daigaku Shuppan KK is incorporated in Japan.
- u Cambridge Knowledge (China) Limited and United Publishers Services Limited are incorporated in Hong Kong.
- v Cambridge University Press (Greece) MEPE is incorporated in Greece.
- w Cambridge University Press Nigeria Limited is incorporated in Nigeria.
- x Cambridge University Press Satış ve Dağıtım Ticaret Limited Şirketi and Cambridge University Press Turkey Satis Destek Limited Sirket are incorporated in Turkey.
- y Cambridge University Press South Africa Proprietary Limited is a 75% subsidiary incorporated in South Africa.
- z Editorial Edicambridge Cia Ltda is incorporated in Ecuador.
- aa ELT Trading SA de CV is incorporated in Mexico.
- ab HOTmaths Pty Limited is a 55% subsidiary incorporated in Australia.
- ac Cambridge-Obeikan Company Limited is incorporated in Saudi Arabia.

Other significant investments

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

Name	% interest	Principal Activity
Ampika Limited	40	Commercial exploitation of intellectual property
Cambridge in America	22	Fundraising
Morphogen-IX Limited	26	Commercial exploitation of intellectual property
Polypharmakos	27	Commercial exploitation of intellectual property
Predictimmune	24	Commercial exploitation of intellectual property
ROADMap Systems Limited	35	Commercial exploitation of intellectual property

In addition, at the year end the University held an interest of 33.5% in Cambridge Innovation Capital plc as part of its investment portfolio. Movements in the carrying value of this investment are included in the consolidated surplus for the year.

*Notes to the accounts for the year ended 31 July 2017 (continued)***36 Related party transactions**

Due to the nature of the University's operations and the composition of its Council, it is inevitable that the University will enter into transactions in the normal course of business with Colleges, NHS Trusts, Research Councils, other grant-awarding bodies, and other private and public sector organisations in which members of the Council may have an interest. All transactions involving organisations in which members of Council may have such an interest, including those summarized 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 13) has control or joint control;
- (b) entities over which a member of Council has significant influence; and
- (c) entities of which a member of Council is a member of the key management personnel.

Such transactions are summarized 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 summarized in note 37 below. Included within the financial statements are other transactions with the following related parties:

Africa's Voices Foundation Limited

Africa's Voices Foundation Limited is a charitable social service research foundation based on applied research at the University of Cambridge that includes a member of the University Council as a trustee. In the year ended 31 July 2017, the University made payments of £88,000 to Africa's Voices Foundation Limited.

Cambridge University Hospitals NHS Foundation Trust

Cambridge University Hospitals NHS Foundation Trust (the 'Trust'), comprising Addenbrooke's and the Rosie hospitals, is owned by a membership of patients, public and staff who are represented by a council of governors which includes a member of the University Council. Research grants and contracts income for the year ended 31 July 2017 includes £23.1m in respect of continuing grants funded by the Trust, and £17.1m was invoiced to the Trust in respect of other services, principally salary recharges. The University made payments to the Trust totalling £9.7m in the year ended 31 July 2017. Balances with the Trust at the year end were trade debtors £3.8m, trade creditors £1.2m, and net research invoiced in advance and treated as a creditor £2.3m.

Cambridge University Students Union

One of the student members on the University Council held a part-time executive position in the Student Union for the 2016–17 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 2017, provided a grant of £274,000 and made other payments totalling £19,000 for services provided. The Union made payments to the University totalling £14,000 for temporary staff, network, and other services provided.

Cancer Research UK

The Vice-Chancellor was appointed as Chair of Cancer Research UK during 2016–17. Research grants and contracts income for the year ended 31 July 2017 includes £38.5m in respect of continuing grants funded by Cancer Research UK, and £22,000 was invoiced in respect of other services, principally connected to the Cambridge Research Institute. Balances with the charity at the year end were trade debtors £10,000 and net research invoiced in advance and treated as a creditor £10.7m.

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 2017 includes £8.6m in respect of continuing grants funded by Gatsby of which £2.4m was included in creditors at the year end.

Higher Education Funding Council for England

The Higher Education Funding Council for England (HEFCE) allocates funding from the government to universities and colleges in England. HEFCE is led by the HEFCE Board that includes a member of the University's Council. Funding received from HEFCE is included in funding body grants (see note 6) in accordance with the University's accounting policies. At 31 July 2017 current liabilities included £9.7m in respect of funding received from HEFCE but not yet recognized as income.

Kidney Research UK

Kidney Research UK is a registered charity governed by a Board of Trustees that includes a member of the University's Council. Research grants and contracts income for the year ended 31 July 2017 includes £218,000 in respect of grants funded by Kidney Research UK, of which £147,000 was included in debtors at the year end.

PervasID Limited

PervasID Limited is a private limited company spun out from research activity in the Department of Engineering that includes a member of the University's Council as a Director. In the year ended 31 July 2017, the University made payments of £200,000 to PervasID Limited.

University of Cambridge Graduate Union

The President of the Graduate Union was also a member of the University's Council for the 2016–17 financial year. Under *Statutes and Ordinances*, Chapter II, the University has discretion to provide financial assistance to the Graduate Union and, in the year ended 31 July 2017, provided a grant of £101,000. The Union made payments to the University totalling £10,000 for network and other services provided.

Notes to the accounts for the year ended 31 July 2017 (continued)

37 Colleges

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

During the year the University paid the Colleges sums totalling £67.3m (2016: £64.1m) under the terms of agreements between the University and the Colleges to share fee income with the Colleges in a way that recognizes the relative contributions of the University and the Colleges. These payments are included as 'Payments to Colleges' in note 14 above.

The University distributed third party donations to the Colleges totalling £6.9m (2016: £7.5m); 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 £3.9m (2016: £3.6m), and the Colleges provided accommodation, catering and other services to the University for which the University paid a total of £13.1m (2016: £9.5m). During the year the Colleges made donations to the University totalling £5.3m (2016: £6.4m).

Current asset investments include £277.3m (2016: £176.7m) held on behalf of 14 (2016: 13) Colleges in the form of CUEF units (see note 24) and £14.9m (2016: £10.6m) held on behalf of the Isaac Newton Trust.

Colleges Fund

	2017 £m	2016 £m
Balance at 1 August	–	–
Contributions received from Colleges	4	4
Interest earned	–	–
Payments to Colleges	(4)	(4)
	<hr/>	<hr/>
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.

38 Connected charitable institutions

A number of charitable institutions are administered by or on behalf of the University and have been established for its general or special purposes. As a result, under paragraph 28 of Schedule 3 to the Charities Act 2011, these connected institutions are exempt from registration with the Charity Commission. Some of the connected institutions are included as subsidiary undertakings in these consolidated financial statements; others are not included in the consolidation since the University does not have control over their activities. The movements in the year on these charities' funds as reported in their own accounts were as follows:

	As at 1 August 2016 £m	Income £m	Expenditure £m	Market value increase £m	As at 31 July 2017 £m
Consolidated (see note 35)					
Cambridge Commonwealth, European, and International Trust	129.3	24.6	(24.0)	18.1	148.0
Gates Cambridge Trust	239.6	8.4	(8.0)	28.7	268.7
Malaysian Commonwealth Studies Centre in Cambridge	5.0	0.1	(1.6)	0.3	3.8
The Dennis S. Avery and Sally Tsui Wong-Avery Endowment Trust	2.6	0.1	(0.1)	0.3	2.9
Oxford, Cambridge, and RSA Examinations	91.0	72.1	(70.1)	10.4	103.4
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	467.5	105.3	(103.8)	57.8	526.8
Fund balances are included in the consolidated balance sheet as:					
Expendable endowments	244.6				272.5
Permanent endowments	8.0				5.8
Restricted reserves	0.5				1.0
Unrestricted reserves	214.4				247.5
	<hr/>				<hr/>
	467.5				526.8
Not consolidated					
Isaac Newton Trust, established by Trinity College (see note 37) to promote education, learning, and research in the University (accounts drawn up to 30 June 2017)	10.3	2.0	(5.7)	2.1	8.7
University of Cambridge Veterinary School Trust, for the support of veterinary education in the University	1.6	0.4	(0.3)	0.2	1.9
One smaller scholarship trust	0.3	–	–	0.1	0.4
Registered clubs and societies:					
Cambridge Dancers Club	–	0.1	(0.1)	–	–
Cambridge University Amateur Dramatic Club	0.1	0.2	(0.2)	–	0.1
Cambridge University Boat Club	0.1	0.4	(0.3)	–	0.2
Cambridge University Eco Racing	–	0.1	(0.1)	–	–
Cambridge University Polo Club	0.2	0.1	(0.1)	–	0.2
Cambridge University Real Tennis Club	0.2	0.1	(0.1)	–	0.2
Cambridge University Rugby Union Football Club	0.7	0.3	(0.5)	–	0.5
Cambridge University Women's Boat Club Association	0.4	0.4	(0.4)	–	0.4
414 smaller clubs and societies	3.4	2.7	(2.4)	–	3.7
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	17.3	6.8	(10.2)	2.4	16.3

Notes to the accounts for the year ended 31 July 2017 (continued)

39 Financial risk management

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

Through the CUEF, the University invests in various categories of assets for the long term in order to achieve the CUEF's investment objective of a total return of RPI plus 5.25 per cent per annum. The CUEF is managed by the University's Investment Office on behalf of Cambridge Investment Management Limited, with the oversight of the University's Investment Board. In order to pursue its investment objective the CUEF seeks exposure to a variety of risks. This exposure could result in a reduction in the University's net assets.

a Credit risk

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

Credit risk exposure

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

	2017 £m	2016 £m
Interest-bearing securities	–	15.0
Derivative financial instrument asset positions	37.4	57.7
Investment cash balances	110.5	51.8
Trade debtors: invoices receivable	232.6	157.3
Other debtors	147.3	210.3
Money market investments	237.8	280.7
Cash at bank	87.0	88.1
	<hr/>	<hr/>
Total financial assets exposed to credit risk	852.6	860.9

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

Trade debtors: outstanding invoices	239.8	164.0
Less: Provision for impairment of receivables	(7.2)	(6.7)
	<hr/>	<hr/>
	232.6	157.3

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 2017, trade debtors with carrying value of £50.9m (2016: £55.4m) were past their due date but not impaired.

	2017 £m	2016 £m
Balances against which a provision has been made	10.6	8.5
Balances not past their due date	178.3	100.1
Up to 3 months past due	34.1	40.8
3 to 6 months past due	10.4	7.4
Over 6 months past due	6.4	7.2
	<hr/>	<hr/>
	239.8	164.0

Movement on provision for impairment of receivables

Opening balance	6.7	7.4
Provided in year	2.1	0.5
Balances written off	(1.6)	(1.2)
	<hr/>	<hr/>
Closing balance	7.2	6.7

Risk management policies and procedures

The University aims to minimize 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 authorized limits and rating criteria which are subject to annual review.

Notes to the accounts for the year ended 31 July 2017 (continued)

39 Financial risk management (continued)**a Credit risk (continued)**

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

Fitch credit quality rating (short / long term)	2017 £m	2016 £m
F1+ / AA Highest / Very High	62.5	76.5
F1+ / AA - Highest / Very High	18.8	–
F1 / A+ Highest / High	93.0	81.3
F1 / A Highest / High	112.4	146.5
F1 / A - Highest / High	1.5	–
F2 / A - Good / High	–	32.1
F2 / BBB+ Good / Good	20.0	–
F3 / BBB Fair / Good	–	25.0
Lower ratings	16.6	7.4
	324.8	368.8

b Liquidity risk

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

Risk management policies and procedures

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

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

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

	Three months or less £m	Between three months and one year £m	Between one and five years £m	More than five years £m	Total £m
As at 31 July 2017:					
Bond liabilities	6.6	6.6	52.5	750.3	816.0
Derivative financial instruments liability positions	37.4	–	–	–	37.4
Investments held on behalf of others	298.7	–	–	–	298.7
Bank overdraft	–	–	–	–	–
Bank and other loans	0.3	0.5	0.7	–	1.5
Finance leases	0.3	1.0	2.6	–	3.9
Other creditors excluding deferred income	159.5	–	–	–	159.5
Totals at 31 July 2017	502.8	8.1	55.8	750.3	1,317.0
As at 31 July 2016:					
Bond liabilities	6.6	6.6	52.5	763.4	829.1
Derivative financial instruments liability positions	57.7	–	–	–	57.7
Investments held on behalf of others	195.5	–	–	–	195.5
Bank overdraft	33.9	–	–	–	33.9
Bank and other loans	0.3	0.6	1.7	–	2.6
Finance leases	0.3	1.0	3.9	–	5.2
Other creditors excluding deferred income	161.0	3.5	–	–	164.5
Totals at 31 July 2016	455.3	11.7	58.1	763.4	1,288.5

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

c Market risk

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

CUEF

The Investment Board advises the Council and is made up of investment professionals. The Investment Board monitors the performance of the Investment Office as well as providing advice to it. Investments in the CUEF are selected and combined with the aim of optimizing 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 utilizing diversification of investment strategies, of investment asset classes, and of external investment managers. The CUEF operates an evolving asset allocation, in the context of a long-term direction. The proposed changes over the following twelve months are revised quarterly in discussion with the Investment Board. Within each asset class, fund managers are appointed and carry out the day-to-day investment transactions.

Notes to the accounts for the year ended 31 July 2017 (continued)

39 Financial risk management (continued)**c Market risk (continued)****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:

	2017	2016
Pounds Sterling	50.1%	52.7%
US Dollar	40.0%	30.6%
Euro	0.6%	3.6%
Japanese Yen	3.8%	4.2%
Other currency	5.5%	8.9%
	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 summarizes the significant assets and liabilities exposed to currency risk as at 31 July 2017:

	US Dollar \$m	Euro €m	US Dollar £m	Euro £m	Other £m	Total £m
CUEF investment assets excluding currency contracts	2,235.2	129.6	1,695.5	115.9	342.1	2,153.5
CUEF forward currency contracts	(663.3)	(107.8)	(503.1)	(96.4)	(67.3)	(666.8)
Net exposure of CUEF	1,571.9	21.8	1,192.4	19.5	274.8	1,486.7
Exposures outside CUEF:						
Debtors	55.7	25.9	42.3	23.2	22.6	88.1
Cash balances	24.2	12.4	18.3	11.1	22.5	51.9
Creditors including bank and other loans	(33.6)	(6.8)	(25.5)	(6.0)	(19.2)	(50.7)
Forward currency contracts	–	(34.0)	–	(30.4)	–	(30.4)
Net exposure	1,618.2	19.3	1,227.5	17.4	300.7	1,545.6

The impact on total recognized gains for the year 2016-17 of additional 10% variations in the principal exchange rates would have been:

10% US Dollar appreciation	122.7
10% Euro appreciation	1.7

The following table summarizes the significant assets and liabilities exposed to currency risk as at 31 July 2016:

	US Dollar \$m	Euro €m	US Dollar £m	Euro £m	Other £m	Total £m
CUEF investment assets excluding currency contracts	1,311.8	138.8	840.6	98.3	360.1	1,299.0
CUEF forward currency contracts	(854.4)	(140.3)	(547.5)	(99.3)	(49.7)	(696.5)
Net exposure of CUEF	457.4	(1.5)	293.1	(1.0)	310.4	602.5
Exposures outside CUEF:						
Debtors	46.4	15.8	29.8	11.2	16.0	57.0
Cash balances	9.4	38.6	6.0	27.3	13.8	47.1
Creditors including bank and other loans	(26.1)	(3.6)	(13.7)	0.1	(15.3)	(28.9)
Forward currency contracts	–	(30.0)	–	(27.5)	–	(27.5)
Net exposure	487.1	19.3	315.2	10.1	324.9	650.2

The impact on total recognized gains for the year 2015-16 of additional 10% variations in the principal exchange rates would have been:

10% US Dollar appreciation	68.0
10% Euro appreciation	8.6

Risk management policies and procedures

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

Notes to the accounts for the year ended 31 July 2017 (continued)

39 Financial risk management (continued)

c Market risk (continued)

c (ii) Interest rate risk

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

Interest rate exposure and sensitivity

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

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

At 31 July 2017 the University held no (2016: £15.0m) corporate and overseas government bonds with fixed interest.

Risk management policies and procedures

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

c (iii) Other price risk

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

This is a key risk for the University because of the significance of the endowments and other funds invested in the CUEF and the dependence of future plans on maintaining the value of CUEF units in real terms.

Concentration of exposure to other price risk

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

Risk management policies and procedures

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

Notes to the accounts for the year ended 31 July 2017 (continued)

40 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 Bond liabilities are measured at amortized cost of £342.5m (2016: £342.5m, see note 27) whereas the fair value of the Bond liabilities at 31 July 2017 was £487.7m (2016: £513m) based on the last reported trade. The book values of the Group's other financial assets and long-term liabilities, including pension obligations shown on the balance sheet are the same as the fair values.

Fair value measurements

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

- Level 1: Valued using quoted prices in active markets for identical assets.
 Level 2: Valued by reference to valuation techniques using observable inputs other than quoted prices included within Level 1.
 Level 3: Valued by reference to valuation techniques using inputs that are not based on observable market data.

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

	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Investment assets at fair value as at 31 July 2017				
CUEF: Quoted investments	863.8	1.3	–	865.1
Unquoted investments	–	2,012.6	2.8	2,015.4
Derivative financial instruments asset positions	37.4	–	–	37.4
Cash in hand and at investment managers	103.9	–	–	103.9
Total CUEF assets	1,005.1	2,013.9	2.8	3,021.8
Other quoted investments	12.2	–	–	12.2
Other unquoted investments	–	19.3	44.9	64.2
Investment properties	–	407.1	–	407.1
Money market investments	43.5	–	–	43.5
Cash in hand and at investment managers	6.6	–	–	6.6
Total investment assets at fair value	1,067.4	2,440.3	47.7	3,555.4
Derivative financial instruments liability positions (CUEF)	(37.4)	–	–	(37.4)
Total investments at fair value at 31 July 2017	1,030.0	2,440.3	47.7	3,518.0
Investment assets at fair value as at 31 July 2016				
CUEF: Quoted investments	767.1	11.6	–	778.7
Unquoted investments	–	1,917.7	5.7	1,923.4
Derivative financial instruments asset positions	57.7	–	–	57.7
Cash in hand and at investment managers	51.8	–	–	51.8
Total CUEF assets	876.6	1,929.3	5.7	2,811.6
Other quoted investments	11.7	–	–	11.7
Other unquoted investments	–	7.7	32.6	40.3
Investment properties	–	288.0	–	288.0
Money market investments	40.6	–	–	40.6
Cash in hand and at investment managers	10.7	–	–	10.7
Total investment assets at fair value	939.6	2,225.0	38.3	3,202.9
Derivative financial instruments liability positions (CUEF)	(57.7)	–	–	(57.7)
Total investments at fair value at 31 July 2016	881.9	2,225.0	38.3	3,145.2

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

	2017 £m	2016 £m
Fair value as at 1 August	38.3	61.6
Purchases less sales proceeds	(2.9)	(16.4)
Total gains	12.3	8.2
Transfers out of Level 3	–	(15.1)
Fair value as at 31 July	47.7	38.3

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 valuations of the underlying investments as supplied to the University's custodian by the administrators of those funds or partnerships. The Council considers that no reasonably foreseeable change to key assumptions in the Level 3 valuations would result in a significant change in fair value. Transfers into and out of Level 3 occur when the classification of the underlying assets and liabilities of these funds changes.