

Financial Statements

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Independent Auditor’s report to the members of Pearson plc

Opinion

In our opinion:

- Pearson plc’s group financial statements and parent company financial statements (the “financial statements”) give a true and fair view of the state of the group’s and of the parent company’s affairs as at 31 December 2022 and of the group’s profit for the year then ended;
- the group financial statements have been properly prepared in accordance with UK-adopted international accounting standards;
- the parent company financial statements have been properly prepared in accordance with UK-adopted international accounting standards as applied in accordance with section 408 of the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements of Pearson plc (the ‘parent company’) and its subsidiaries (the ‘group’) for the year ended 31 December 2022 which comprise:

Group	Parent company
Consolidated income statement for the year ended 31 December 2022	Company Balance sheet as at 31 December 2022
Consolidated statement of comprehensive income for the year ended 31 December 2022	Company Statement of changes in equity for the year then ended
Consolidated balance sheet as at 31 December 2022	Company cash flow statement for the year then ended
Consolidated statement of changes in equity for the year ended 31 December 2022	Related notes 1 to 11 to the financial statements including a summary of significant accounting policies
Consolidated cash flow statement for the year ended 31 December 2022	
Related notes 1-38 to the financial statements, including a summary of significant accounting policies	

The financial reporting framework that has been applied in their preparation is applicable law and UK adopted international accounting standards, as applied in accordance with section 408 of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor’s responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the group and parent in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC’s Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

The non-audit services prohibited by the FRC’s Ethical Standard were not provided to the group or the parent company and we remain independent of the group and the parent company in conducting the audit.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the directors’ use of the going concern basis of accounting in the preparation of the financial statements is appropriate. Our evaluation of the directors’ assessment of the group and parent company’s ability to continue to adopt the going concern basis of accounting included:

- We performed our own independent assessment of the risk around going concern at the planning and year end phases of the audit.
- In conjunction with our walkthrough of the Group’s financial statement close process, we confirmed our understanding of management’s going concern assessment process and engaged with management early to understand and assess the key assumptions made in their assessment.
- We agreed the 31 December 2022 cash and debt balances included in the going concern assessment to the Group’s year end balances.
- We read the group’s debt agreements to understand the covenant requirements and tested to check that no covenants have been breached during the year to 31 December 2022 and there is no forecast covenant breach in either the base or severe but plausible downside case scenarios during the going concern assessment period covering the period to 30 June 2024.
- We checked the logic and arithmetical integrity of management’s going concern model that includes the cash forecasts for the going concern assessment period.

- We assessed the appropriateness of the duration of the going concern assessment period to 30 June 2024 and considered the existence of any significant events or conditions beyond this period based on our procedures on the Group’s long-range plan and knowledge arising from other areas of the audit.
- We considered the appropriateness of the assumptions used to calculate the cash forecasts under base and plausible downside case scenarios by reference to historical forecasting accuracy and comparison to sector benchmarks. We challenged whether the downside scenarios utilised were sufficiently severe for a going concern assessment.
- We assessed the reasonableness of the cash flow forecasts included in the going concern assessment by understanding the potential impact of the Group’s principal risks as well as any potential impact from COVID-19, current geopolitical matters and the impact of climate change have been reflected in the forecasts.
- We evaluated the key assumptions by searching for contrary evidence to challenge these assumptions, including third party sector forecasts and analyst expectations. Further, we ensured these assumptions were consistent with the budget approved by Pearson’s Board.
- We also challenged the measurement and completeness of the downside scenario modelled by management by reference to the Group’s principal risks and uncertainties of the Group.
- We considered the mitigating actions that are within the control of the Group and evaluated the Group’s ability to control these outflows if required.
- We considered whether the Group’s forecasts in the going concern assessment were consistent with other forecasts used by the Group in its accounting estimates, including goodwill impairment.

- We considered the Group’s reverse stress testing to identify the magnitude of decline in revenue and operating profit that would lead to the Group utilising all liquidity or breaching a covenant during the going concern assessment period and we have considered the likelihood of such a decline.
- We reviewed the Group’s going concern disclosures included in the Annual Report, in note 1(c) to the financial statements, to assess that they were accurate and in conformity with the reporting standards.

We observe that in management’s base case and severe but plausible downside scenarios, there is significant headroom without taking the benefit of any identified mitigations.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group and parent company’s ability to continue as a going concern for a period to 30 June 2024.

In relation to the Group and parent company’s reporting on how they have applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the directors’ statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Group’s ability to continue as a going concern.

Overview of our audit approach

Audit scope	• We performed an audit of the complete financial information of 4 components and audit procedures on specific balances for a further 11 components. We also performed specified audit procedures on specific balances for a further 4 components. • The components where we performed full or specific audit procedures accounted for 85% of adjusted Profit before tax, 89% of Revenue and 95% of Total assets.
Key audit matters	• Fraud risks in revenue recognition • Valuation of acquired intangible assets • Uncertain tax provision for EU State Aid case
Materiality	• Overall group materiality of £20.9m which represents 5% of adjusted Profit before tax.

An overview of the scope of the parent company and group audits

Tailoring the scope

Our assessment of audit risk, our evaluation of materiality and our allocation of performance materiality determine our audit scope for each company within the Group. Taken together, this enables us to form an opinion on the consolidated financial statements We take into account size, risk profile, the organisation of the group and effectiveness of group-wide controls, changes in the business environment, the potential impact of climate change and other factors such as recent Internal Audit results when assessing the level of work to be performed at each company.

The Group operates finance shared service centres in Belfast and Manila, the outputs of which are included in the financial information of the reporting components they service and therefore they are not separate reporting components. Each of the service centres is subject to specified risk-focused audit procedures, predominantly the testing of transaction processing and controls testing. Additional procedures are performed at the scoped components to address the audit risks not covered by the work performed over the shared service centres, or where the scoped components are not served by the shared service centres.

In assessing the risk of material misstatement to the Group financial statements, and to ensure we had adequate quantitative coverage of significant accounts in the financial statements, of the 189 reporting components of the Group, we selected 15 components covering entities within the UK, US, Brazil and Australia, which represent the principal business units within the Group.

Of the 15 components selected, we performed an audit of the complete financial information of 4 components (“full scope components”) which were selected based on their size or risk characteristics. For the remaining 11 components (“specific scope components”), we performed audit procedures on specific accounts within that component that we considered had the potential for the greatest impact on the significant accounts in the financial statements either because of the size of these accounts or their risk profile.

For an additional 4 components (“specified procedures components”), we performed certain audit procedures on specific accounts within that component that we considered had the potential for the greatest impact on the significant accounts in the financial statements, either because of the size of these accounts or their risk profile. These procedures were undertaken by separate component audit teams under the primary audit team’s direction. The audit scope of these components may not have included testing of all significant accounts of the component but will have contributed to the coverage of significant accounts tested for the Group.

The reporting components where we performed audit procedures accounted for 85% of the Group’s adjusted Profit before tax, 89% of the Group’s Revenue and 95% of the Group’s Total assets. For the current year, the full scope components contributed 71% of the Group’s adjusted Profit before tax, 73% of the Group’s Revenue and 88% of the Group’s Total assets. The specific scope components contributed 14% of the Group’s adjusted Profit before tax, 16% of the Group’s Revenue and 7% of the Group’s Total assets. The audit scope of these components may not have included testing of all significant accounts of the component but will have contributed to the coverage of significant accounts tested for the Group. We also instructed 4 locations to perform specified procedures over certain balances, including aspects of revenue recognition.

Of the remaining 170 components that together represent 15% of the Group’s adjusted Profit before tax, none are individually greater than 5% of the Group’s adjusted Profit before tax. For these components, we performed other procedures, including analytical review, testing of consolidation journals and intercompany eliminations to respond to any potential risks of material misstatement to the Group financial statements.

Involvement with component teams

In establishing our overall approach to the Group audit, we determined the type of work that needed to be undertaken at each of the components by us, as the primary audit engagement team, or by component auditors from other EY global network firms operating under our instruction. The audit procedures performed at the finance shared service centres were performed by the primary team with assistance from the Philippines member firm. Of the 4 full scope components, audit procedures were performed on 1 of these directly by the primary audit team. Of the 11 specific scope components, audit procedures were performed on 2 of these directly by the primary audit team. For the 3 full scope and 9 specific scope components, where the work was performed by component auditors, we determined the appropriate level of involvement to enable us to determine that sufficient audit evidence had been obtained as a basis for our opinion on the Group as a whole.

The Group audit team followed a programme of planned visits that has been designed to ensure that each full or specific scope component was visited by either the Senior Statutory Auditor, or other senior members of the Group audit team. During the current year’s audit cycle, visits were undertaken by the Group audit team to the component teams in the US, Brazil and Australia. These visits involved discussing the audit approach with the component team and any issues arising from their work, meeting with local management, attending planning and progress meetings and reviewing relevant audit working papers on risk areas. The primary team interacted regularly with the component teams where appropriate during various stages of the audit, reviewed relevant working papers and were responsible for the scope and direction of the audit process. Close meetings for full, specific, and specified procedures components (excluding those performed by the primary audit team) were held via video conference in January and February 2023 and were attended by the Senior Statutory Auditor and/or other members of the primary audit team. This, together with the additional procedures performed at Group level, gave us appropriate evidence for our opinion on the Group financial statements.

Climate change

Stakeholders are increasingly interested in how climate change will impact Pearson. The Group has determined that the most significant future impacts from climate change on their operations will be from physical risks in the medium and long term. These are explained on pages 39-41 in the required Task Force for Climate related Financial Disclosures. They have also explained their climate commitments on pages 37-38. All of these disclosures form part of the “Other information,” rather than the audited financial statements. Our procedures on these unaudited disclosures therefore consisted solely of considering whether they are materially inconsistent with the financial statements, or our knowledge obtained in the course of the audit or otherwise appear to be materially misstated, in line with our responsibilities on “Other information”.

In planning and performing our audit we assessed the potential impacts of climate change on the Group’s business and any consequential material impact on its financial statements.

The Group has explained in the Basis of Preparation note the key areas of the financial statements that may be impacted by climate change and the Group concluded there is no material financial statement impact from climate change. These disclosures also explain where governmental and societal responses to climate change risks are still developing, and where the degree of certainty of these changes means that they cannot be taken into account when determining impairment assessments under the requirements of UK-adopted International accounting standards.

Our audit effort in considering the impact of climate change on the financial statements was focused on evaluating management’s assessment of the impact of physical and transition climate risk, their climate commitments, the effects of material climate risks disclosed on pages 40 to 41 and whether these have been appropriately reflected in asset values where these are impacted by future cash flows and associated sensitivity disclosures, this primarily being impairment assessments following the requirements of UK-adopted international accounting standards. As part of this evaluation, we performed our own risk assessment, supported by our climate change internal specialists, to determine the risks of material

misstatement in the financial statements from climate change which needed to be considered in our audit.

We also challenged the Directors’ considerations of climate change risks in their assessment of going concern and viability and associated disclosures. Where considerations of climate change were relevant to our assessment of going concern, these are described above.

Based on our work we have not identified the impact of climate change on the financial statements to be a key audit matter or to impact a key audit matter.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in our opinion thereon, and we do not provide a separate opinion on these matters.

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Fraud risks in revenue recognition (revenues of £3,841m, PY £3,428m) <i>Refer to the Audit Committee Report (page 80); Accounting policies (page 145); and Note 3 of the Consolidated Financial Statements (page 151).</i> Given revenue is a key performance indicator, both in communication of the Group’s results and for management incentives, we have identified a risk of management override of controls through: • Manipulation of the rate of completion for contracts that span the year end; and • Topside manual journals to revenue.	We obtained an understanding and evaluated the design and tested the operating effectiveness of controls over the Group’s material revenue processes. We performed testing over revenue recognition in 4 full scope components, 8 specific scope components and 4 specified procedures components. We have performed testing over rate of completion in 2 full scope components. The audit of topside manual journals was performed in all full, specific and specified procedures scope locations and on consolidation. For rate of completion, where relevant, we performed our own independent assessment of the stage of completion of contracts based on actual and forecast costs and course completion rates. We have assessed the forecast costs to complete by contract, considered historical forecasting accuracy as well as vouching that all forecast costs aggregate to the relevant budget amount for each business. We looked for contradictory evidence by analysing contract forecast profitability for outliers. For manual journals, we instructed our full, specific and specified procedure scope component teams to test all manual journals recorded against revenue. We tested that these journals were appropriately approved and evaluated supporting evidence. The Group team tested all manual journals recorded on consolidation. We tested the completeness of journals posted and tested that these journals were appropriately approved and evaluated supporting evidence.	Revenue for the year to 31 December 2022 has been recognised appropriately.

Independent Auditor’s Report *continued*

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Valuation of acquired intangibles (£110m, PY £27m) <i>Refer to the Audit Committee Report (page 80); Accounting policies (page 143); and Note 30 of the Consolidated Financial Statements (page 193).</i> During the year, Pearson made two significant acquisitions: Credly and Mondly. The identification of acquired intangible assets requires specialised skills. The valuation involves complex judgement, due to the estimation uncertainty and the application of valuation techniques built, in part, on assumptions around the future performance of the acquired businesses, including assumptions impacted by future events, such as revenue growth rates, customer churn rates and profitability. Changes in these assumptions can have a material effect on the valuation of identifiable intangible assets. We focused our risk on the most significant elements of the valuation, namely the Credly customer relationships and technology asset and the Mondly technology asset. The sensitive assumptions for Credly customer relationships are revenue from existing customers, retention rate, profitability and discount rate. For the Credly technology asset, these are revenue growth and royalty rate. For the Mondly technology asset, these are revenue growth, obsolescence, profitability and discount rate. * and the risk that the acquired intangibles are overstated.	Our audit of the fair values of the acquired assets and liabilities was performed by the Group audit team. We obtained an understanding and evaluated the design and tested the operating effectiveness of controls over the Group's process to identify and value intangible assets, including their use of a valuation specialist. We assessed the independence and expertise of management's valuation specialist. We challenged the existence and completeness of identified intangible assets by involving EY valuation specialists with the appropriate experience. We reviewed the valuation methodologies applied, with the assistance of EY valuation specialists, to validate that they were appropriate. We focused our testing of the prospective financial information included in the valuation calculation on the key assumptions that are most sensitive to the valuation We challenged these assumptions by involving our valuation specialists where appropriate for assumptions such as discount rate and royalty rates. For revenue and profitability assumptions we validated these by comparison to historical performance, underlying contractual terms, benchmarking to a range of peer companies provided by our valuation specialists and third party sector analysis. We evaluated the adequacy of the business combination disclosures to the requirements in IFRS 3.	Based on the procedures performed, we agree that the assumptions, valuation of the acquired intangibles are appropriate. Disclosures in Note 30 of the consolidated financial statements are appropriate.
Uncertain tax position for EU State Aid case (£63m, PY £nil) <i>Refer to the Audit Committee Report (page 80); Accounting policies (page 145); and Notes 7 and 34 of the Consolidated Financial Statements (pages 160 and 198).</i> Following an EU General Court Decision on 8 June 2022 on whether certain elements of UK tax code constituted State Aid, a provision of £63m has been recorded in the Group financial statements in respect of a potential tax exposure. A payment on account to HMRC of £105m had been made in 2021 for this matter. The provision has been recorded through income tax expense against this receivable, with the balance disclosed as a contingent liability, Auditing the Group's recorded £63m provision at 31 December 2022 required significant auditor judgement in assessing management's expectations of the outcome of matters as there is a significant range of possible outcomes between £nil and the maximum exposure of £105m and therefore a risk of misstatement.	The primary audit team performed full scope procedures over this matter. We obtained an understanding and evaluated the design and tested the operating effectiveness of controls over the Group's tax process over uncertain tax positions. We understood the background the case by reviewing correspondence with HMRC. We reviewed management's analysis to support their conclusion that the exposure was now “more likely than not” following the 8 June 2022 EU General Court hearing. We reviewed correspondence with management's specialist, assessed their independence and expertise, and held a virtual meeting with them to discuss their considerations. We challenged management's conclusion by involving an EY EU State Aid specialist to assist us in forming our own view about whether the exposure was more likely than not. We reviewed management's calculation of the provision and assessed the appropriateness of the methodology used. We considered the appropriateness of the potential outcomes included in the calculation and the probabilities assigned to each outcome. We challenged the probabilities by seeking the input of an EY tax specialist. We reviewed the disclosures in the Annual Report.	Based on the current status of proceedings and the opinion of the Group's external legal counsel, we conclude that management's provision is appropriately stated. We agree that disclosure set out in Notes 7 and 34 of the consolidated financial statements is appropriate.

Our application of materiality

We apply the concept of materiality in planning and performing the audit, in evaluating the effect of identified misstatements on the audit and in forming our audit opinion.

Materiality

The magnitude of an omission or misstatement that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of the financial statements. Materiality provides a basis for determining the nature and extent of our audit procedures.

We determined materiality for the Group to be £20.9 million , which is 5% of adjusted Profit before tax. We believe that adjusted Profit before tax provides us with the most relevant performance measure to the stakeholders of the Group given the prominence of this metric throughout the Annual Report and consolidated financial statements, analyst presentations, and profit metrics focussed on by analysts.

- We determined materiality for the Parent Company to be £44 million , which is 1% of net assets. Where Parent Company balances were audited as part of the Group audit, they were audited to an allocation of the Group's performance materiality.

During the course of our audit, we reassessed initial materiality of £18.4m and increased it to reflect the actual results for the year .

The previous auditor determined materiality for the Group to be £18.5m for the year ended 31 December 2021.

Performance materiality

The application of materiality at the individual account or balance level. It is set at an amount to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality.

On the basis of our risk assessments, together with our assessment of the Group's overall control environment, our judgement was that performance materiality was 50% of our planning materiality, namely £10.5m. We have set performance materiality at this percentage on the basis that this is our first year as auditors of the Group. Audit work at component locations for the purpose of obtaining audit coverage over significant financial statement accounts is undertaken based on a percentage of total performance materiality. The performance materiality set for each component is based on the relative scale and risk of the component to the Group as a whole and our assessment of the risk of misstatement at that component. In the current year, the range of performance materiality allocated to components was £1.8m to £5.0m.

Starting basis	— Profit before tax – £323m
Adjustments	— Add: net £185m adjustments against operating profit, including; cost of restructuring, intangible charges, transaction costs and profit on disposal of businesses. — Less: net £56m adjustments against finance income, including; fair value movements and pensions. — Less; £34m reversal of interest on the release of a historic tax liability
Materiality	— Adjusted Profit before tax £418m (materiality basis) — Materiality of £20.9m (5% of materaility basis)

Reporting threshold

An amount below which identified misstatements are considered as being clearly trivial.

We agreed with the Audit Committee that we would report to them all uncorrected audit differences in excess of £1.05m , which is set at 5% of materiality, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds

We evaluate any uncorrected misstatements against both the quantitative measures of materiality discussed above and in light of other relevant qualitative considerations in forming our opinion.

Other information

The other information comprises the information included in the annual report set out on pages 1 to 120, other than the financial statements and our auditor's report thereon. The directors are responsible for the other information contained within the annual report.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements, or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, the part of the directors’ remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the directors’ report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors’ report have been prepared in accordance with applicable legal requirements.

Independent Auditor’s Report *continued*

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the group and the parent company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the directors’ report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements and the part of the Directors’ Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors’ remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit

Corporate Governance Statement

We have reviewed the directors’ statement in relation to going concern, longer-term viability and that part of the Corporate Governance Statement relating to the group and company’s compliance with the provisions of the UK Corporate Governance Code specified for our review by the Listing Rules.

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the Corporate Governance Statement is materially consistent with the financial statements or our knowledge obtained during the audit:

- Directors’ statement with regards to the appropriateness of adopting the going concern basis of accounting and any material uncertainties identified set out on page 116;
- Directors’ explanation as to its assessment of the company’s prospects, the period this assessment covers and why the period is appropriate set out on page 52;
- Director’s statement on whether it has a reasonable expectation that the group will be able to continue in operation and meets its liabilities set out on page 52;
- Directors’ statement on fair, balanced and understandable set out on page 123 ;
- Board’s confirmation that it has carried out a robust assessment of the emerging and principal risks set out on page 44;
- The section of the annual report that describes the review of effectiveness of risk management and internal control systems set out on page 84 ; and;
- The section describing the work of the audit committee set out on page 80.

Responsibilities of directors

As explained more fully in the directors’ responsibilities statement set out on page 124, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group and parent company’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the parent company or to cease operations, or have no realistic alternative but to do so.

Auditor’s responsibilities for the audit of the financial statements

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

Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect irregularities, including fraud. The risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

However, the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the company and management.

We obtained an understanding of the legal and regulatory frameworks that are applicable to the group and determined that the most significant frameworks which are directly relevant to specific assertions in the financial statements are those that relate to the reporting framework (UK-adopted International Accounting Standards, the Companies Act 2006 and the UK Corporate Governance Code) and the relevant tax laws and regulations in the countries in which the Group operates.

We understood how Pearson plc is complying with those frameworks by making enquiries of management, Internal Audit, those responsible for legal and compliance procedures and the Company Secretary. We corroborated our enquiries through review of Board minutes and papers provided to the Audit Committee and observation in Audit Committee meetings, as well as consideration of the results of our audit procedures across the Group

We assessed the susceptibility of the group’s financial statements to material misstatement, including how fraud might occur and met with finance and operational management from various parts of the business to understand where they considered there was susceptibility to fraud. We also considered performance targets and their potential to influence management to manage earnings or influence the perception of analysts. We have determined that there is a fraud risk with aspects of revenue recognition. We considered the policies, processes and controls that the Group has established to address the risks identified, including the design of controls over each significant revenue stream. We also considered the controls that the Group has that otherwise prevent, deter and detect fraud, and how senior management monitors those controls.

Based on this understanding we designed our audit procedures to identify non-compliance with such laws and regulations. We performed audit procedures to address the identified fraud risk, including testing over the specific revenue recognition fraud risk as noted in the key audit matters section of this report. These procedures were designed to provide reasonable assurance that the financial statements as a whole are free from material misstatement, due to fraud or error. In addition, we completed procedures to conclude on the compliance of the disclosures in the Annual Report and Accounts with all applicable requirements. Any instances of non-compliance with laws and regulations were communicated by/to components and considered in our audit approach, if applicable.

A further description of our responsibilities for the audit of the financial statements is located on the

Financial Reporting Council’s website at <https://www.frc.org.uk/auditorsresponsibilities>. This description forms part of our auditor’s report.

Other matters we are required to address

- Following the recommendation from the Audit Committee, we were appointed by the Company at its Annual General Meeting on 29 April 2022 to audit the financial statements for the year ending 31 December 2022 and subsequent financial periods.

The period of total uninterrupted engagement including previous renewals and reappointments is one year, covering the year ending 31 December 2022.

- The audit opinion is consistent with the additional report to the Audit Committee.

Use of our report

This report is made solely to the company’s members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company’s members those matters we are required to state to them in an auditor’s report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company’s members as a body, for our audit work, for this report, or for the opinions we have formed.

Ben Marles
(Senior statutory auditor)

for and on behalf of Ernst & Young LLP, Statutory Auditor

London

15 March 2023

Consolidated income statement

Year ended 31 December 2022

All figures in £ millions	Notes	2022	2021 ¹	2020 ¹
Continuing operations				
Sales	2,3	3,841	3,428	3,397
Cost of goods sold	4	(2,046)	(1,747)	(1,767)
Gross profit		1,795	1,681	1,630
Operating expenses	4	(1,549)	(1,562)	(1,402)
Other net gains and losses	4	24	63	178
Share of results of joint ventures and associates	12	1	1	5
Operating profit	2	271	183	411
Finance costs	6	(71)	(68)	(107)
Finance income	6	123	62	76
Profit before tax		323	177	380
Income tax	7	(79)	1	(50)
Profit for the year		244	178	330
Attributable to:				
Equity holders of the company		242	177	330
Non-controlling interest		2	1	–
Earnings per share attributable to equity holders of the company during the year (expressed in pence per share)				
• basic	8	32.8p	23.5p	43.7p
• diluted	8	32.6p	23.3p	43.7p

1. Comparative balances have been restated – see Note 1b.

Consolidated statement of comprehensive income

Year ended 31 December 2022

All figures in £ millions	Notes	2022	2021 ¹	2020 ¹
Profit for the year		244	178	330
Items that may be reclassified to the income statement				
Net exchange differences on translation of foreign operations		330	(6)	(109)
Currency translation adjustment disposed		(5)	4	(70)
Attributable tax	7	4	10	(13)
Items that are not reclassified to the income statement				
Fair value gain/(loss) on other financial assets		18	4	(12)
Attributable tax	7	1	(1)	–
Remeasurement of retirement benefit obligations	25	54	149	(23)
Attributable tax	7	(12)	(61)	2
Other comprehensive income/(expense) for the year	29	390	99	(225)
Total comprehensive income for the year		634	277	105
Attributable to:				
Equity holders of the company		630	276	105
Non-controlling interest		4	1	–

1. Comparative balances have been restated – see Note 1b.

Consolidated balance sheet

As at 31 December 2022

All figures in £ millions	Notes	2022	2021 ¹
Assets			
Non-current assets			
Property, plant and equipment	10	250	366
Investment property	10	60	–
Intangible assets	11	3,177	2,769
Investments in joint ventures and associates	12	25	24
Deferred income tax assets	13	57	57
Financial assets – derivative financial instruments	16	43	30
Retirement benefit assets	25	581	537
Other financial assets	15	133	113
Income tax assets		41	97
Trade and other receivables	22	139	129
		4,506	4,122
Current assets			
Intangible assets – product development	20	975	894
Inventories	21	105	98
Trade and other receivables	22	1,139	1,257
Financial assets – derivative financial instruments	16	16	2
Income tax assets		9	26
Cash and cash equivalents (excluding overdrafts)	17	558	937
		2,802	3,214
Assets classified as held for sale	32	16	7
Total assets		7,324	7,343
Liabilities			
Non-current liabilities			
Financial liabilities – borrowings	18	(1,144)	(1,245)
Financial liabilities – derivative financial instruments	16	(54)	(30)
Deferred income tax liabilities	13	(37)	(40)
Retirement benefit obligations	25	(61)	(66)
Provisions for other liabilities and charges	23	(14)	(7)
Other liabilities	24	(120)	(95)
		(1,430)	(1,483)

Consolidated balance sheet *continued*

As at 31 December 2022

All figures in £ millions	Notes	2022	2021 ¹
Current liabilities			
Trade and other liabilities	24	(1,254)	(1,256)
Financial liabilities – borrowings	18	(86)	(155)
Financial liabilities – derivative financial instruments	16	(11)	(4)
Income tax liabilities		(43)	(125)
Provisions for other liabilities and charges	23	(85)	(40)
		(1,479)	(1,580)
Liabilities classified as held for sale	32	–	–
Total liabilities		(2,909)	(3,063)
Net assets		4,415	4,280
Equity			
Share capital	27	179	189
Share premium	27	2,633	2,626
Treasury shares	28	(15)	(12)
Capital redemption reserve		28	18
Fair value reserve		(13)	(4)
Translation reserve		709	386
Retained earnings		881	1,067
Total equity attributable to equity holders of the company		4,402	4,270
Non-controlling interest		13	10
Total equity		4,415	4,280

1. Comparative balances have been restated – see Note 1b.

These financial statements have been approved for issue by the Board of Directors on 15 March 2023 and signed on its behalf by

Sally Johnson

Chief Financial Officer

Pearson plc

Registered number: 00053723

Consolidated statement of changes in equity

Year ended 31 December 2022

	Equity attributable to equity holders of the company									
	Share capital	Share premium	Treasury shares	Capital redemption reserve	Fair value reserve	Translation reserve	Retained earnings	Total	Non-controlling interest	Total equity
All figures in £ millions										
At 1 January 2022	189	2,626	(12)	18	(4)	386	1,067	4,270	10	4,280
Profit for the year	-	-	-	-	-	-	242	242	2	244
Other comprehensive income/(expense)	-	-	-	-	18	323	47	388	2	390
Total comprehensive income/(expense)	-	-	-	-	18	323	289	630	4	634
Equity-settled transactions	-	-	-	-	-	-	38	38	-	38
Taxation on equity-settled transactions	-	-	-	-	-	-	3	3	-	3
Issue of ordinary shares under share option schemes	-	7	-	-	-	-	-	7	-	7
Buyback of equity	(10)	-	-	10	-	-	(353)	(353)	-	(353)
Purchase of treasury shares	-	-	(37)	-	-	-	-	(37)	-	(37)
Release of treasury shares	-	-	34	-	-	-	(34)	-	-	-
Transfer of gain on disposal of FVOCI investment	-	-	-	-	(27)	-	27	-	-	-
Dividends	-	-	-	-	-	-	(156)	(156)	(1)	(157)
At 31 December 2022	179	2,633	(15)	28	(13)	709	881	4,402	13	4,415

	Equity attributable to equity holders of the company									
	Share capital	Share premium	Treasury shares	Capital redemption reserve	Fair value reserve¹	Translation reserve	Retained earnings¹	Total	Non-controlling interest	Total equity
All figures in £ millions										
At 1 January 2021	188	2,620	(7)	18	(4)	388	922	4,125	9	4,134
Profit for the year	-	-	-	-	-	-	177	177	1	178
Other comprehensive income/(expense)	-	-	-	-	4	(2)	97	99	-	99
Total comprehensive income/(expense)	-	-	-	-	4	(2)	274	276	1	277
Equity-settled transactions	-	-	-	-	-	-	28	28	-	28
Issue of ordinary shares under share option schemes	1	6	(1)	-	-	-	-	6	-	6
Buyback of equity	-	-	-	-	-	-	-	-	-	-
Purchase of treasury shares	-	-	(16)	-	-	-	-	(16)	-	(16)
Release of treasury shares	-	-	12	-	-	-	(12)	-	-	-
Transfer of gain on disposal of FVOCI investment	-	-	-	-	(4)	-	4	-	-	-
Dividends	-	-	-	-	-	-	(149)	(149)	-	(149)
At 31 December 2021	189	2,626	(12)	18	(4)	386	1,067	4,270	10	4,280

	Equity attributable to equity holders of the company									
	Share capital	Share premium	Treasury shares	Capital redemption reserve	Fair value reserve¹	Translation reserve	Retained earnings¹	Total	Non-controlling interest	Total equity
All figures in £ millions										
At 1 January 2020	195	2,614	(24)	11	39	567	911	4,313	10	4,323
Adjustment (see note 1b)	-	-	-	-	(31)	-	31	-	-	-
At 1 January 2020 (restated)	195	2,614	(24)	11	8	567	942	4,313	10	4,323
Profit for the year	-	-	-	-	-	-	330	330	-	330
Other comprehensive income/(expense)	-	-	-	-	(12)	(179)	(34)	(225)	-	(225)
Total comprehensive income/(expense)	-	-	-	-	(12)	(179)	296	105	-	105
Equity-settled transactions	-	-	-	-	-	-	29	29	-	29
Issue of ordinary shares under share option schemes	-	6	-	-	-	-	-	6	-	6
Buyback of equity	(7)	-	-	7	-	-	(176)	(176)	-	(176)
Purchase of treasury shares	-	-	(6)	-	-	-	-	(6)	-	(6)
Release of treasury shares	-	-	23	-	-	-	(23)	-	-	-
Dividends	-	-	-	-	-	-	(146)	(146)	(1)	(147)
At 31 December 2020	188	2,620	(7)	18	(4)	388	922	4,125	9	4,134

1. Comparative balances have been restated – see Note 1b.

The capital redemption reserve reflects the nominal value of shares cancelled in the Group's share buyback programme. The fair value reserve arises on revaluation of other financial assets. The translation reserve includes exchange differences arising from the translation of the net investment in foreign operations and of borrowings and other currency instruments designated as hedges of such investments.

Consolidated cash flow statement

Year ended 31 December 2022

All figures in £ millions	Notes	2022	2021¹	2020¹
Cash flows from operating activities				
Profit before tax		323	177	380
Net finance (costs) / income		(52)	6	31
Depreciation and impairment - PPE and investment property		136	241	125
Amortisation and impairment - software		125	117	112
Amortisation and impairment - acquired intangible assets		54	50	80
Other net gains and losses		(24)	(63)	(178)
Product development capital expenditure		(357)	(287)	(323)
Amortisation and impairment - product development		303	279	280
Share-based payment costs		35	28	29
Change in inventories		(34)	22	35
Change in trade and other receivables		33	(71)	(1)
Change in trade and other liabilities		(84)	37	(26)
Change in provisions for other liabilities and charges		50	14	(37)
Other movements		19	20	(57)
Net cash generated from operations		527	570	450
Interest paid		(57)	(67)	(63)
Tax (paid)/received		(109)	(177)	2
Net cash generated from operating activities		361	326	389
Cash flows from investing activities				
Acquisition of subsidiaries, net of cash acquired	30	(228)	(55)	(6)
Acquisition of joint ventures and associates		(5)	(10)	-
Purchase of investments		(12)	(4)	(6)
Purchase of property, plant and equipment and investment property		(57)	(64)	(53)
Purchase of intangible assets		(90)	(112)	(81)
Disposal of subsidiaries, net of cash disposed	31	333	83	100
Proceeds from disposal of joint ventures and associates	31	-	-	531
Proceeds from disposal of investments		17	48	-
Proceeds from disposal of property, plant and equipment		14	-	-
Lease receivables repaid including disposals		18	21	41
Loans repaid by related parties		-	-	48
Interest received		22	13	13
Dividends from joint ventures and associates		1	-	4
Net cash generated from/(used in) investing activities		13	(80)	591
Cash flows from financing activities				
Proceeds from issue of ordinary shares	27	7	6	6
Buyback of equity	27	(353)	-	(176)
Purchase of treasury shares	28	(37)	(16)	(6)
Proceeds from borrowings		-	-	346
Repayment of borrowings		(171)	(167)	(230)
Repayment of lease liabilities		(93)	(88)	(92)
Dividends paid to company's shareholders	9	(156)	(149)	(146)
Dividends paid to non-controlling interest		(1)	-	(1)
Net cash used in financing activities		(804)	(414)	(299)
Effects of exchange rate changes on cash and cash equivalents		36	(8)	(2)
Net (decrease)/increase in cash and cash equivalents		(394)	(176)	679
Cash and cash equivalents at beginning of year		937	1,113	434
Cash and cash equivalents at end of year	17	543	937	1,113

1. Comparative balances have been restated – see Note 1b. In addition, the Group has changed the presentation of the consolidated cash flow statement with the aim of simplifying for the reader. The reconciliation to net cash generated from operations is now presented above and certain line items have been aggregated and disaggregated. There has been no change to the classification of cash flows as operating, investing and financing, or to the definition of the Group's alternative performance measure related to cash flow as set out in note 33.

Notes to the consolidated financial statements

General information

Pearson plc (‘the company’), its subsidiaries and associates (together ‘the Group’) are international businesses covering educational courseware, assessments and services.

The company is a public limited company incorporated in England and Wales and domiciled in the United Kingdom. The address of its registered office is 80 Strand, London WC2R 0RL.

The company has its primary listing on the London Stock Exchange and is also listed on the New York Stock Exchange.

These consolidated financial statements were approved for issue by the Board of Directors on 15 March 2023.

1a. Accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below.

Basis of preparation

These consolidated financial statements, and the company financial statements, have been prepared on the going concern basis (see note 1c) and in accordance with the Disclosure and Transparency Rules of the Financial Conduct Authority and in accordance with UK-adopted International Accounting Standards and with the requirements of the Companies Act 2006. On 31 December 2020, IFRS as adopted by the European Union at that date was brought into UK law and became UK-adopted International Accounting Standards (IASs), with future changes being subject to endorsement by the UK Endorsement Board. The Group and company transitioned to UK-adopted IASs on 1 January 2021. This change constituted a change in accounting framework. However, there was no impact on recognition, measurement or disclosure as a result of the change in framework. The consolidated and company financial statements have also been prepared in accordance with IFRSs as issued by the International Accounting Standards Board (IASB) as they apply to annual reporting periods beginning on 1 January 2022. In respect of accounting standards applicable to the Group, there is no difference between UK-adopted IASs and IFRSs as issued by the IASB as they apply to annual reporting periods commencing on 1 January 2022.

These consolidated financial statements, and the company financial statements, have been prepared under the historical cost convention as modified by the revaluation of financial assets and liabilities (including derivative financial instruments) at fair value.

These accounting policies have been consistently applied to all years presented, unless otherwise stated.

1. Interpretations and amendments to published standards effective 2022

– No new standards were adopted in 2022.

A number of other new pronouncements are effective from 1 January 2022 but they do not have a material impact on the consolidated financial statements, or the company financial statements. Additional disclosure has been given where relevant.

2. Standards, interpretations and amendments to published standards that are not yet effective

– The following new accounting standards and amendments to new accounting standards have been issued but are not yet effective and unless otherwise indicated, have been endorsed by the UK Endorsement Board:

- IFRS 17 ‘Insurance contracts’;
- Amendments to IAS 1 and IFRS Practice Statement 2 ‘Disclosure of accounting policies’;
- Amendments to IAS 1 ‘Classification of liabilities as current or non-current’ (not yet endorsed);
- Amendments to IAS 1 ‘Non-current liabilities with covenants’ (not yet endorsed);
- Amendments to IAS 8 ‘Definition of accounting estimates’;
- Amendments to IAS 12 ‘Deferred tax related to assets and liabilities arising from a single transaction’; and
- Amendments to IFRS 16 ‘Lease liability in a sale and leaseback’ (not yet endorsed).

The Group is currently assessing the impact of the above changes, but they are not expected to have a material impact. The Group does not plan to early adopt any of the above new accounting standards or amendments. The Group has not adopted any other standard, amendment or interpretation that has been issued but is not yet effective.

3. Critical accounting assumptions and judgements

– The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting assumptions and estimates. It also requires management to exercise its judgement in the process of applying the Group’s accounting policies.

All assumptions and estimates constitute management’s best judgement at the date of the financial statements, however, in the future, actual experience may deviate from these estimates and assumptions.

The areas requiring a higher degree of judgement or complexity, or areas where assumptions and estimates have a significant risk of resulting in material adjustments to the carrying value of assets and liabilities within the consolidated financial statements are:

- Intangible assets: goodwill and acquired intangible assets
- Taxation
- Revenue: provisions for returns
- Employee benefits: pensions
- Property, plant and equipment: right-of-use assets
- Classification as discontinued operations

The key judgements and key areas of estimation are set out below, as well as in the relevant accounting policies and in the notes to the accounts where appropriate.

KJ Key judgements

- The application of tax legislation in relation to provisions for uncertain tax positions. See notes 7 and 34.
- The allocation of goodwill to the cash-generating units and groups of cash-generating units. See note 11.
- Whether the Group will be eligible to receive the surplus associated with the UK Group Pension Plan in recognising a pension asset. See note 25.
- The results and cash flows of businesses disposed do not meet the criteria to be classified and presented as discontinued operations. See note 31.

KE Key areas of estimation

- The recoverability of goodwill balances. Key assumptions used in goodwill impairment testing are discount rates, perpetuity growth rates, forecast sales growth rates and forecast operating profits. See note 11.
- The valuation of acquired intangible assets recognised on the acquisition of a business. See notes 11 and 30.
- The level of provisions required in relation to uncertain tax positions is complex and each matter is separately assessed. The estimation of future settlement amounts is based on a number of factors including the status of the unresolved matter, clarity of legislation, range of possible outcomes and the statute of limitations. See notes 7 and 34.
- The level of provisions required for anticipated returns is estimated based on historical experience, customer buying patterns and retailer behaviours including stock levels. See note 3.
- The determination of the pension cost and defined benefit obligation of the Group’s defined benefit pension schemes depends on the selection of certain assumptions, which include the discount rate, inflation rate, salary growth and longevity. See note 25.
- The recoverability of right-of-use assets and in particular assumptions related to the ability to sublease vacant leased assets in the future. See note 10.

The Group has assessed the impact of the uncertainty presented by the volatile macro-economic and geo-political environment on the financial statements, specifically considering the impact on key judgements and significant estimates along with other areas of increased risk as follows:

- Financial instruments and hedge accounting; and
- Translation methodologies.

No material accounting impacts relating to the areas assessed above were recognised in the year. The Group will continue to monitor these areas of increased judgement, estimation and risk.

The Group no longer considers the COVID-19 pandemic to be an area of significant uncertainty and is no longer specifically assessing the impact of the COVID-19 pandemic on areas of judgement, estimation and risk.

Consolidation

1. Business combinations

– The acquisition method of accounting is used to account for business combinations.

The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred and the equity interest issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred in the operating expenses line of the income statement. Identifiable assets acquired and identifiable liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The determination of fair values often requires significant judgements and the use of estimates, and, for material acquisitions, the fair value of the acquired intangible assets is determined by an independent valuer. The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill (note 30).

See the ‘Intangible assets’ policy for the accounting policy on goodwill. If this is less than the fair value of the net assets of the subsidiary acquired, in the case of a bargain purchase, the difference is recognised directly in the income statement.

On an acquisition-by-acquisition basis, the Group recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest’s proportionate share of the acquiree’s net assets.

IFRS 3 ‘Business Combinations’ has not been applied retrospectively to business combinations before the date of transition to IFRS.

Management exercises judgement in determining the classification of its investments in its businesses, in line with the following:

2. Subsidiaries

– Subsidiaries are entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

3. Transactions with non-controlling interests

– Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions, that is, as transactions with the owners in their capacity as owners. Any surplus or deficit arising from disposals to a non-controlling interest is recorded in equity. For purchases from a non-controlling interest, the difference between consideration paid and the relevant share acquired of the carrying value of the subsidiary is recorded in equity.

4. Joint ventures and associates

– Joint ventures are entities in which the Group holds an interest on a long-term basis and has rights to the net assets through contractually agreed sharing of control. Associates are entities over which the Group has significant influence but not the power to control the financial and operating policies, generally accompanying a shareholding of between 20% and 50% of the voting rights. Ownership percentage is likely to be the key indicator of investment classification; however, other factors, such as Board representation, may also affect the accounting classification. Judgement is required to assess all of the qualitative and quantitative factors which may indicate that the Group does, or does not, have significant influence over an investment. Investments in joint ventures and associates are accounted for by the equity method and are initially recognised at the fair value of consideration transferred.

Financial statements

Notes to the consolidated financial statements *continued*

1a. Accounting policies continued

Consolidation continued

The Group's share of its joint ventures' and associates' post-acquisition profits or losses is recognised in the income statement and its share of post-acquisition movements in reserves is recognised in reserves.

The Group's share of its joint ventures' and associates' results is recognised as a component of operating profit as these operations form part of the core publishing business of the Group and are an integral part of existing wholly-owned businesses. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group's share of losses in a joint venture or associate equals or exceeds its interest in the joint venture or associate, the Group does not recognise further losses unless the Group has incurred obligations or made payments on behalf of the joint venture or associate.

Unrealised gains and losses on transactions between the Group and its joint ventures and associates are eliminated to the extent of the Group's interest in these entities.

5. Contribution of a subsidiary to an associate or joint venture

– The gain or loss resulting from the contribution or sale of a subsidiary to an associate or a joint venture is recognised in full. Where such transactions do not involve cash consideration, significant judgements and estimates are used in determining the fair values of the consideration received.

Foreign currency translation

1. Functional and presentation currency – Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The consolidated financial statements are presented in sterling, which is the company's functional and presentation currency.

2. Transactions and balances – Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the income statement, except when deferred in equity as qualifying net investment hedges.

3. Group companies – The results and financial position of all Group companies that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities are translated at the closing rate at the date of the balance sheet
- Income and expenses are translated at average exchange rates
- All resulting exchange differences are recognised as a separate component of equity.

On consolidation, exchange differences arising from the translation of the net investment in foreign entities, and of borrowings and other currency instruments designated as hedges of such investments, are taken to shareholders' equity. The Group treats specific inter-company loan balances, which are not intended to be repaid in the foreseeable future, as part of its net investment. When a foreign operation is sold, such exchange differences are recognised in the income statement as part of the gain or loss on sale.

The principal overseas currency for the Group is the US dollar. The average rate for the year against sterling was \$1.24 (2021: \$1.38; 2020: \$1.28) and the year-end rate was \$1.21 (2021: 1.35; 2020: \$1.37).

Property, plant and equipment

Property, plant and equipment are stated at historical cost less depreciation. Cost includes the original purchase price of the asset and the costs attributable to bringing the asset to its working condition for intended use. Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate their cost less their residual values over their estimated useful lives as follows:

Buildings (freehold):	20–50 years
Buildings (leasehold):	over the period of the lease
Plant and equipment:	3–10 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date.

The carrying value of an asset is written down to its recoverable amount if the carrying value of the asset is greater than its estimated recoverable amount.

Investment property

In 2022, the Group classified certain assets as investment property. Properties that are no longer occupied by the Group and which are held for operating lease rental are classified as investment property. Investment property assets are carried at cost less accumulated depreciation and any recognised impairment in value. The depreciation policies for investment property are consistent with those described for property, plant and equipment

Intangible assets

1. Goodwill – For the acquisition of subsidiaries made on or after 1 January 2010, goodwill represents the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired. For the acquisition of subsidiaries made from the date of transition to IFRS to 31 December 2009, goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of the net identifiable assets acquired. Goodwill on acquisitions of subsidiaries is included in intangible assets. Goodwill on acquisition of associates and joint ventures represents the excess of the cost of an acquisition over the fair value of the Group's share of the net identifiable assets acquired.

Goodwill on acquisitions of associates and joint ventures is included in investments in associates and joint ventures.

Goodwill is tested at least annually for impairment and carried at cost less accumulated impairment losses. An impairment loss is recognised to the extent that the carrying value of goodwill exceeds the recoverable amount. The recoverable amount is the higher of fair value less costs of disposal and value in use. These calculations require the use of estimates in respect of forecast cash flows and discount rates and significant management judgement in respect of cash-generating unit (CGU) and cost allocation; impairment is a key source of estimation uncertainty and has a significant risk of resulting in a material adjustment to the carrying amount of relevant assets within the next financial year. A summary of these assets by CGU and a description of the key assumptions and sensitivities is included in note 11.

Goodwill is allocated to aggregated CGUs for the purpose of impairment testing. The allocation is made to those aggregated CGUs that are expected to benefit from the business combination in which the goodwill arose. Where there are changes to CGUs, goodwill is reallocated to the new CGUs and aggregation of CGUs using a relative value method.

Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

2. Acquired software – Software separately acquired for internal use is capitalised at cost. Software acquired in material business combinations is capitalised at its fair value as determined by an independent valuer. The assets are assessed for impairment triggers on an annual basis or when triggering events occur. Acquired software is amortised on a straight-line basis over its estimated useful life of between three and eight years.

3. Internally developed software – Internal and external costs incurred during the preliminary stage of developing computer software for internal use are expensed as incurred. Internal and external costs incurred to develop computer software for internal use during the application development stage are capitalised if the Group expects economic benefits from the development. Capitalisation in the application development stage begins once the Group can reliably measure the expenditure attributable to the software development and has demonstrated its intention to complete and use the software. Internally developed software is amortised on a straight-line basis over its estimated useful life of between three and ten years. The assets are assessed for impairment triggers on an annual basis or when triggering events occur.

4. Acquired intangible assets – Acquired intangible assets include customer lists, contracts and relationships, trademarks and brands, publishing rights, content, technology and software rights. These assets are capitalised on acquisition at cost and included in intangible assets. Intangible assets acquired in material business combinations are capitalised at their fair value as determined by an independent valuer. The valuation of these assets are a key source of estimation uncertainty. Intangible assets are amortised over their estimated useful lives of between two and 20 years, using an amortisation method that reflects the pattern of their consumption. The assets are assessed for impairment triggers on an annual basis or when triggering events occur.

5. Product development assets – Product development assets represent direct costs incurred in the development of educational programmes and titles prior to their publication. These costs are recognised as current intangible assets where the title will generate probable future economic benefits and costs can be measured reliably.

Product development assets relating to content are amortised upon publication of the title over estimated economic lives of seven years or less, being an estimate of the expected operating lifecycle of the title, with a higher proportion of the amortisation taken in the earlier years. Product development assets relating to product platforms are amortised over 10 years or less, being an estimate of the expected useful life.

The assessment of the useful economic life and the recoverability of product development assets involves judgement and is based on historical trends and management estimation of future potential sales.

Product development assets are assessed for impairment triggers on an annual basis or when triggering events occur. The carrying amount of product development assets is set out in note 20.

The investment in product development assets has been disclosed as part of net cash generated from operating activities in the cash flow statement (see note 33).

Other financial assets

Other financial assets are non-derivative financial assets classified and measured at estimated fair value.

Marketable securities and cash deposits with maturities of greater than three months are classified and subsequently measured at fair value through profit and loss (FVTPL). They are remeasured at each balance sheet date by using market data and the use of established valuation techniques. Any movement in the fair value is immediately recognised in finance income or finance costs in the income statement.

Investments in the equity instruments of other entities are classified and subsequently measured at fair value through other comprehensive income (FVOCI). Changes in fair value are recorded in equity in the fair value reserve via other comprehensive income. On subsequent disposal of the asset, the net fair value gains or losses are reclassified from the fair value reserve to retained earnings. Any dividends received from equity investments classified as FVOCI are recognised in the income statement unless they represent a return of capital.

Investments in funds which have a limited life are classified and subsequently measured at fair value through profit and loss (FVTPL). Changes in fair value are included within net finance costs within the income statement and excluded from adjusted earnings.

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the weighted average method or an approximation thereof, such as the first in first out (FIFO) method. The cost of finished goods and work in progress comprises raw materials, direct labour, other direct costs and related production overheads. Net realisable value is the estimated selling price in the ordinary course of business, less estimated costs necessary to make the sale. Provisions are made for slow-moving and obsolete stock.

Financial statements

Notes to the consolidated financial statements *continued*

1a. Accounting policies continued

Royalty advances

Advances of royalties to authors are included within trade and other receivables when the advance is paid less any provision required to adjust the advance to its net realisable value. The realisable value of royalty advances relies on a degree of management estimation in determining the profitability of individual author contracts. If the estimated realisable value of author contracts is overstated, this will have an adverse effect on operating profits as these excess amounts will be written off.

The recoverability of royalty advances is based upon an annual detailed management review of the age of the advance, the future sales projections for new authors and prior sales history of repeat authors.

The royalty advance is expensed at the contracted or effective royalty rate as the related revenues are earned. Royalty advances which will be consumed within one year are held in current assets. Royalty advances which will be consumed after one year are held in non-current assets.

Cash and cash equivalents

Cash and cash equivalents in the cash flow statement include cash in hand, deposits held on call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are included in borrowings in current liabilities in the balance sheet.

Short-term deposits and marketable securities with maturities of greater than three months do not qualify as cash and cash equivalents and are reported as financial assets. Movements on these financial assets are classified as cash flows from financing activities in the cash flow statement where these amounts are used to offset the borrowings of the Group or as cash flows from investing activities where these amounts are held to generate an investment return.

Share capital

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Where any Group company purchases the company's equity share capital (treasury shares), the consideration paid, including any directly attributable incremental costs, net of income taxes, is deducted from equity attributable to the company's equity holders until the shares are cancelled, reissued or disposed of. Where such shares are subsequently sold or reissued, any consideration received, net of any directly attributable transaction costs and the related income tax effects, is included in equity attributable to the company's equity holders.

Ordinary shares purchased under a buyback programme are cancelled and the nominal value of the shares is transferred to a capital redemption reserve.

Borrowings

Borrowings are recognised initially at fair value, which is proceeds received net of transaction costs incurred. Borrowings are subsequently stated at amortised cost with any difference between the proceeds (net of transaction costs) and the redemption value being recognised in the income statement over the period of the borrowings using the effective interest method. Accrued interest is included as part of borrowings.

Where a debt instrument is in a fair value hedging relationship, an adjustment is made to its carrying value in the income statement to reflect the hedged risk.

Where a debt instrument is in a net investment hedge relationship, gains and losses on the effective portion of the hedge are recognised in other comprehensive income.

Derivative financial instruments

Derivatives are recognised at fair value and remeasured at each balance sheet date. The fair value of derivatives is determined by using market data and the use of established estimation techniques such as discounted cash flow and option valuation models.

For derivatives in a hedge relationship, the currency basis spread is excluded from the designation as a hedging instrument.

Changes in the fair value of derivatives are recognised immediately in finance income or costs. However, derivatives relating to borrowings and certain foreign exchange contracts are designated as part of a hedging transaction.

The accounting treatment is summarised as follows:

Typical reason for designation	Reporting of gains and losses on effective portion of the hedge	Reporting of gains and losses on disposal
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Net investment hedge

The derivative creates a foreign currency liability which is used to hedge changes in the value of a subsidiary which transacts in that currency.	Recognised in other comprehensive income.	On the disposal of foreign operations or subsidiaries, the accumulated value of gains and losses reported in other comprehensive income is transferred to the income statement.
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Fair value hedges

The derivative transforms the interest profile on debt from fixed rate to floating rate. Changes in the value of the debt as a result of changes in interest rates and foreign exchange rates are offset by equal and opposite changes in the value of the derivative. When the Group's debt is swapped to floating rates, the contracts used are designated as fair value hedges.	Gains and losses on the derivative are reported in finance income or finance costs. However, an equal and opposite change is made to the carrying value of the debt (a 'fair value adjustment') with the benefit/cost reported in finance income or finance costs. The net result should be a zero charge on a perfectly effective hedge.	If the debt and derivative are disposed of, the value of the derivative and the debt (including the fair value adjustment) are reset to zero. Any resultant gain or loss is recognised in finance income or finance costs.
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Non-hedge accounted contracts

These are not designated as hedging instruments. Typically, these are short-term contracts to convert debt back to fixed rates or foreign exchange contracts where a natural offset exists.	Recognised in the income statement. No hedge accounting applies.
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Taxation

Current tax is recognised at the amounts expected to be paid or recovered under the tax rates and laws that have been enacted or substantively enacted at the balance sheet date.

Deferred income tax is provided, using the balance sheet liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts. Deferred income tax is determined using tax rates and laws that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred tax asset is realised or the deferred income tax liability is settled.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred income tax is provided in respect of the undistributed earnings of subsidiaries, associates and joint ventures other than where it is intended that those undistributed earnings will not be remitted in the foreseeable future.

Current and deferred tax are recognised in the income statement, except when the tax relates to items charged or credited directly to equity or other comprehensive income, in which case the tax is also recognised in equity or other comprehensive income.

The Group is subject to income taxes in numerous jurisdictions. Significant judgement is required in determining the estimates in relation to the worldwide provision for income taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Group recognises tax provisions when it is considered probable that there will be a future outflow of funds to a tax authority. The provisions are based on management's best judgement of the application of tax legislation and best estimates of future settlement amounts (see note 7). Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

Deferred tax assets and liabilities require management judgement and estimation in determining the amounts to be recognised. In particular, when assessing the extent to which deferred tax assets should be recognised, significant judgement is used when considering the timing of the recognition and estimation is used to determine the level of future taxable income together with any future tax planning strategies (see note 13).

Employee benefits

1. Pensions – The retirement benefit asset and obligation recognised in the balance sheet represent the net of the present value of the defined benefit obligation and the fair value of plan assets at the balance sheet date. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting estimated future cash flows using yields on high-quality corporate bonds which have terms to maturity approximating the terms of the related liability.

When the calculation results in a potential asset, the recognition of that asset is limited to the asset ceiling – that is the present value of any economic benefits available in the form of refunds from the plan or a reduction in future contributions. Management uses judgement to determine the level of refunds available from the plan in recognising an asset.

The determination of the pension cost and defined benefit obligation of the Group's defined benefit pension schemes depends on the selection of certain assumptions, which include the discount rate, inflation rate, salary growth and longevity (see note 25).

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise. The service cost, representing benefits accruing over the year, is included in the income statement as an operating cost. Net interest is calculated by applying the discount rate to the net defined benefit obligation and is presented as finance costs or finance income.

Obligations for contributions to defined contribution pension plans are recognised as an operating expense in the income statement as incurred.

2. Other post-retirement obligations – The expected costs of post-retirement medical and life assurance benefits are accrued over the period of employment, using a similar accounting methodology as for defined benefit pension obligations. The liabilities and costs relating to significant other post-retirement obligations are assessed annually by independent qualified actuaries.

3. Share-based payments – The fair value of options or shares granted under the Group's share and option plans is recognised as an employee expense after taking into account the Group's best estimate of the number of awards expected to vest. Fair value is measured at the date of grant and is spread over the vesting period of the option or share. The fair value of the options granted is measured using an option model that is most appropriate to the award. The fair value of shares awarded is measured using the share price at the date of grant unless another method is more appropriate. Any proceeds received are credited to share capital and share premium when the options are exercised.

Provisions

Provisions are recognised if the Group has a present legal or constructive obligation as a result of past events; it is more likely than not that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are discounted to present value where the effect is material.

Revenue recognition

The Group's revenue streams are courseware, assessments and services. Courseware includes curriculum materials provided in book form and/or via access to digital content. Assessments includes test development, processing and scoring services provided to governments, educational institutions, corporations and professional bodies. Services includes the operation of schools, colleges and universities, as well as the provision of online learning services in partnership with universities and other academic institutions.

Revenue is recognised in order to depict the transfer of control of promised goods and services to customers in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods and services. This process begins with the identification of our contract with a customer, which is generally through a master services agreement, customer purchase order, or a combination thereof. Within each contract, judgement is applied to determine the extent to which activities within the contract represent distinct performance obligations to be delivered and the total amount of transaction price to which we expect to be entitled.

Financial statements

Notes to the consolidated financial statements *continued*

1a. Accounting policies continued

The transaction price determined is net of sales taxes, rebates and discounts, and after eliminating sales within the Group. Where a contract contains multiple performance obligations such as the provision of supplementary materials or online access with textbooks, revenue is allocated on the basis of relative standalone selling prices. Where a contract contains variable consideration, significant estimation is required to determine the amount to which the Group is expected to be entitled.

Revenue is recognised on contracts with customers when or as performance obligations are satisfied, which is the period or the point in time where control of goods or services transfers to the customer. Judgement is applied to determine first whether control passes over time and if not, then the point in time at which control passes. Where revenue is recognised over time, judgement is used to determine the method which best depicts the transfer of control. Where an input method is used, significant estimation is required to determine the progress towards delivering the performance obligation.

Revenue from the sale of books is recognised net of a provision for anticipated returns. This provision is based primarily on historical return rates, customer buying patterns and retailer behaviours including stock levels (see note 24). If these estimates do not reflect actual returns in future periods then revenues could be understated or overstated for a particular period. When the provision for returns is remeasured at each reporting date to reflect changes in estimates, a corresponding adjustment is also recorded to revenue.

The Group may enter into contracts with another party in addition to our customer. In making the determination as to whether revenue should be recognised on a gross or net basis, the contract with the customer is analysed to understand which party controls the relevant good or service prior to transferring to the customer. This judgement is informed by facts and circumstances of the contract in determining whether the Group has promised to provide the specified good or service or whether the Group is arranging for the transfer of the specified good or service, including which party is responsible for fulfilment, has discretion to set the price to the customer and is responsible for inventory risk. On certain contracts, where the Group acts as an agent, only commissions and fees receivable for services rendered are recognised as revenue. Any third-party costs incurred on behalf of the principal that are rechargeable under the contractual arrangement are not included in revenue.

Income from recharges of freight and other activities which are incidental to the normal revenue-generating activities is included in other income.

Additional details on the Group's revenue streams are also included in note 3.

Leases

The Group as a lessee

The Group assesses whether a contract is or contains a lease at the inception of the contract. A contract is, or contains a lease, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Group recognises a right-of-use asset and a lease liability at the lease commencement date with respect to all lease arrangements except for short-term leases (leases with a lease term of 12 months or less) and leases of low-value assets. For these leases, the lease payments are recognised as an operating expense on a straight-line basis over the term of the lease.

The right-of-use asset is initially measured at cost, comprising the initial amount of the lease liability plus any initial direct costs incurred and an estimate of costs to restore the underlying asset, less any lease incentives received. The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the asset or the end of the lease term. The Group applies IAS 36 to determine whether a right-of-use asset is impaired. The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the incremental borrowing rate. The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or a rate or a change in the Group's assessment of whether it will exercise an extension or termination option. When the lease liability is remeasured, a corresponding adjustment is made to the right-of-use asset.

Management uses judgement to determine the lease term where extension and termination options are available within the lease.

The Group as a lessor

When the Group is an intermediate lessor, the head lease and sublease are accounted for as two separate contracts. The head lease is accounted for as per the lessee policy above. The sublease is classified as a finance lease or operating lease by reference to the right-of-use asset arising from the head lease. Where the lease transfers substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease; all other leases are classified as operating leases. Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease. Amounts due from lessees under finance subleases are recognised as receivables at the amount of the Group's net investment in the leases discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the discount rate used in the head lease.

Dividends

Final dividends are recorded in the Group's financial statements in the period in which they are approved by the company's shareholders. Interim dividends are recorded when paid.

Discontinued operations

A discontinued operation is a component of the Group's business that represents a separate major line of business or geographical area of operations that has been disposed of or meets the criteria to be classified as held for sale.

When applicable, discontinued operations are presented in the income statement as a separate line and are shown net of tax.

Assets and liabilities held for sale

Assets and liabilities are classified as held for sale and stated at the lower of carrying amount and fair value less costs to sell if it is highly probable that the carrying amount will be recovered principally through a sale transaction rather than through continuing use. No depreciation is charged in respect of non-current assets classified as held for sale. Amounts relating to non-current assets and liabilities held for sale are classified as discontinued operations in the income statement where appropriate.

Trade receivables

Trade receivables are stated at fair value after provision for bad and doubtful debts. Provisions for bad and doubtful debts are based on the expected credit loss model. The 'simplified approach' is used with the expected loss allowance measured at an amount equal to the lifetime expected credit losses. A provision for anticipated future sales returns is included within trade and other liabilities (also see Revenue recognition policy).

1b. Comparative period revisions

In 2022, the Group identified an error related to the classification of certain investments in unlisted securities. Investments that should have been accounted for at fair value through profit and loss were previously accounted for at fair value through other comprehensive income. The investments are held at fair value within other financial assets on the balance sheet. Having assessed both the quantitative and qualitative factors, the Group has determined that the error did not have a material impact on its previously issued consolidated financial statements. However, the comparative financial statement line items have been corrected to reflect the change in accounting treatment. The fair value movements are now recorded within finance income, rather than within other comprehensive income. All impacted primary statements and related notes have been restated.

For the year ended 31 December 2021, the revision has resulted in an increase in finance income and a corresponding increase in profit before tax of £20m, a reduction in the income tax benefit of £2m, an increase in profit for the year and profit for the year attributable to equity holders of the company of £18m, a decrease in the fair value gain on other financial assets through other comprehensive income of £20m with an increase in the attributable tax of £2m, resulting in a decrease in other comprehensive income for the year of £18m, and no change in total comprehensive income for the year, all as compared to amounts previously reported.

For the year ended 31 December 2020, the revision has resulted in an increase in finance income and a corresponding increase in profit before tax of £26m, an increase in income tax expense of £6m, an increase in profit for the year and profit for the year attributable to equity holders of the company of £20m, a decrease in the fair value gain on other financial assets through other comprehensive income of £26m with an increase in the attributable tax of £6m, resulting in a decrease in other comprehensive income for the year of £20m, and no change in total comprehensive income for the year, all as compared to amounts previously reported.

The impact on both basic and diluted earnings per share attributable to equity holders of the company is an increase of 2.4p for 2021 and 2.7p for 2020.

The restatement had no balance sheet impact except within equity. Opening retained earnings as at 1 January 2020 have increased by £31m and closing retained earnings as at 31 December 2020 have increased by £57m and an equivalent decrease has been recorded to the opening and closing fair value reserve. Closing retained earnings at 31 December 2021 has increased by £37m and an equivalent decrease has been recorded to the closing fair value reserve. The restatement has no impact on the carrying amount of other financial assets in the balance sheet and has no impact on reported net assets, cash flows or total equity. Accordingly, an additional balance sheet as at 1 January 2020 has not been presented.

The fair value movements now presented in the income statements are excluded from adjusted measures as described in note 8, as a result there is no impact to any adjusted measures.

1c. Going concern

In assessing the Group's ability to continue as a going concern for the period to 30 June 2024, the Board reviewed management's four-year plan, which was used as the base case. The review included available liquidity throughout the period and headroom against the Group's two main covenants, which require net debt to EBITDA to be a maximum of four times and interest cover to be at least three times.

At 31 December 2022, the Group had available liquidity of £1.4bn, comprising central cash balances and its undrawn \$1.19bn Revolving Credit Facility (RCF). In February 2023, the maximum RCF facility size was reduced to \$1bn and the model used reflects this change. Significant liquidity and covenant headroom was observed throughout the assessment period in this base model.

A severe but plausible scenario was analysed, where the Group is impacted by all principal risks in both 2023 and 2024, adjusted for probability weighting as well as other significant risks. For this and other downside scenarios tested, the acquisition of PDRI is assumed to be completed and a further capital allocation outflow of £350m is modelled. In the severe but plausible scenario, adjusted operating profit is reduced by around 30%, with a similar impact on operating cashflow. Significant liquidity and covenant headroom was observed throughout the assessment period even before any mitigation actions which management would take if these downside risks were to crystallise.

A reverse stress test was performed to identify the reduction in profit required to cease to be a going concern at or before 30 June 2024. This was achieved in the model through a covenant breach in June 2024 triggering repayment of the Group's debts. The model showed that operating losses were required, with profits reduced by around £750m per year in both 2023 and 2024. This significantly exceeded the severe but plausible downside scenario. The Directors consider this reverse stress test scenario to be implausible.

The Directors have confirmed that there are no material uncertainties that cast doubt on the Group's going concern status and that they have a reasonable expectation that the Group has adequate resources to continue in operational existence beyond 30 June 2024. The consolidated financial statements have therefore been prepared on a going concern basis.

1d. Climate change

The Group has assessed the impacts of climate change on the Group's financial statements , including our commitment to achieving net zero by 2030, and the actions the Group intends to take to achieve those targets. The assessment did not identify any material impact on the Group's significant judgements or estimates at 31 December 2022, or the assessment of going concern for the period to June 2024 and the Group's viability over the next four years. Specifically, we have considered the following areas:

- The physical and transition risks associated with climate change; and
- The actions the Group is taking to meet its carbon reduction and net zero targets.

As a result, the Group has assessed the impacts of climate change on the financial statements, and in particular, on the following areas:

- The impact on the Group's future cash flows, and the resulting impact that such adjustments to our future cash flows would have on the outcome of the annual impairment testing of our goodwill balances (see note 11 for further details), the recognition of deferred tax assets and our assessment of going concern;
- The carrying value of the Group's assets, in particular the recoverable amounts of inventories, product development assets, intangible assets and property, plant and equipment; and
- Any changes to our estimates of the useful economic lives of product development assets, intangible assets and property, plant and equipment.

Financial statements

Notes to the consolidated financial statements *continued*

2. Segment information

On 8 March 2021, the Group announced a new strategy, which included a new management structure and operating model. As a result, the primary operating segments reported to the Group's chief operating decision-maker, the Pearson Executive Management team, changed from 1 July 2021 to reflect the new Group structure. There are five main global business divisions, which are each considered separate operating segments for management and reporting purposes. These five divisions are Assessment & Qualifications, Virtual Learning, English Language Learning, Higher Education and Workforce Skills. In addition, the International Courseware local publishing businesses, which were under strategic review, were being managed as a separate division, known as Strategic Review. In 2022, some of the businesses from the Strategic Review division have been disposed of (see note 31) and the decision was made to retain the English-speaking Canadian and Australian K12 courseware businesses. Both of these businesses have been transferred from the Strategic Review division to the Assessment & Qualifications division to reflect changes to the management and reporting structure. Comparative figures for 2021 and 2020 have been restated to reflect the move between segments, resulting in £34m of sales being transferred from the Strategic Review division to the Assessment & Qualifications division in 2021 and £36m in 2020. The Group has separately disclosed the results from the Penguin Random House associate to the point of disposal in April 2020.

The following describes the principal activities of the five main operating segments:

- Assessment & Qualifications – Pearson VUE, US Student Assessment, Clinical Assessment, UK GCSE and A Levels and International academic qualifications and associated courseware including the English-speaking Canadian and Australian K-12 businesses;
- Virtual Learning – Virtual Schools and Online Program Management;
- English Language Learning – Pearson Test of English, Institutional Courseware and English Online Solutions;
- Workforce Skills – BTEC, GED, TalentLens, Faethm, Credly, Pearson College and Apprenticeships; and
- Higher Education – US, Canadian and International Higher Education Courseware businesses.

For more detail on the services and products included in each operating segment, refer to the strategic report.

									2022
All figures in £ millions	Notes	Assessment & Qualifications	Virtual Learning	English Language Learning	Workforce Skills	Higher Education	Strategic Review	Penguin Random House	Group
Sales	3	1,444	820	321	204	898	154	–	3,841
Adjusted operating profit		258	70	25	(3)	91	15	–	456
Cost of major restructuring		(39)	(29)	(11)	(7)	(63)	(1)	–	(150)
Intangible charges		(14)	(21)	(6)	(12)	(3)	–	–	(56)
UK Pension discretionary increases		(1)	(1)	–	–	(1)	–	–	(3)
Other net gains and losses		(2)	(2)	(11)	–	–	39	–	24
Operating profit/(loss)		202	17	(3)	(22)	24	53	–	271
Finance costs	6								(71)
Finance income	6								123
Profit before tax									323
Income tax	7								(79)
Profit for the year									244
Other segment items									
Share of results of joint ventures and associates	12	–	(2)	4	(1)	–	–	–	1
Depreciation and impairment	10	63	31	7	6	26	3	–	136
Amortisation and impairment	11, 20	139	77	44	27	175	20	–	482

									2021
All figures in £ millions	Notes	Assessment & Qualifications	Virtual Learning	English Language Learning	Workforce Skills	Higher Education	Strategic Review	Penguin Random House	Group ¹
Sales	3	1,238	713	238	172	849	218	–	3,428
Adjusted operating profit		219	32	15	27	73	19	–	385
Cost of major restructuring		(48)	(48)	(27)	(28)	(63)	–	–	(214)
Intangible charges		(13)	(25)	(3)	(7)	(2)	(1)	–	(51)
Other net gains and losses		–	–	–	(2)	–	65	–	63
Operating profit/(loss)		158	(41)	(15)	(10)	8	83	–	183
Finance costs	6								(68)
Finance income	6								62
Profit before tax									177
Income tax	7								1
Profit for the year									178

Other segment items

Share of results of joint ventures and associates	12	–	(1)	3	(1)	–	–	–	1
Depreciation and impairment	10	92	48	14	9	63	15	–	241
Amortisation and impairment	11, 20	134	67	34	25	165	21	–	446

1. Comparative balances have been restated to reflect the move between operating segments.

									2020
All figures in £ millions	Notes	Assessment & Qualifications	Virtual Learning	English Language Learning	Workforce Skills	Higher Education	Strategic Review	Penguin Random House	Group ¹
Sales	3	1,118	692	218	163	956	250	–	3,397
Adjusted operating profit		147	29	1	26	93	16	1	313
Cost of major restructuring		–	–	–	–	–	–	–	–
Intangible charges		(29)	(30)	(7)	(8)	(3)	(3)	–	(80)
Other net gains and losses		–	–	–	–	–	(2)	180	178
Operating profit/(loss)		118	(1)	(6)	18	90	11	181	411
Finance costs	6								(107)
Finance income	6								76
Profit before tax									380
Income tax	7								(50)
Profit for the year									330

Other segment items

Share of results of joint ventures and associates		–	–	4	–	–	–	1	5
Depreciation and impairment		53	21	7	5	28	11	–	125
Amortisation and impairment		154	64	34	24	167	29	–	472

1. Comparative balances have been restated to reflect the move between operating segments.

Financial statements

Notes to the consolidated financial statements *continued*

2. Segment information continued

There were no material inter-segment sales in either 2022, 2021 or 2020.

Corporate costs are allocated to business segments on an appropriate basis depending on the nature of the cost and therefore the total segment result is equal to the Group operating profit.

For additional detailed information on the calculation of adjusted operating profit as shown in the above tables, see pages 215-219 (Financial key performance indicators).

Adjusted operating profit is shown in the above tables as it is the key financial measure used by management to evaluate the performance of the Group. The measure also enables investors to more easily, and consistently, track the underlying operational performance of the Group and its business segments over time by separating out those items of income and expenditure relating to acquisition and disposal transactions, major restructuring programmes and certain other items that are also not representative of underlying performance, which are explained below and reconciled in note 8.

Cost of major restructuring – In August 2022, the Group announced a major restructuring programme to run in 2022. The programme includes efficiencies in product and content, support costs, technology and corporate property. The restructuring costs in 2022 of £150m mainly relate to staff redundancies and impairment of right-of-use property assets. In 2021, restructuring costs of £214m mainly related to the impairment of right-of-use property assets, the write-down of product development assets and staff redundancies. The 2022 charge includes the impact of updated assumptions related to the recoverability of right-of-use assets made in 2021. The costs of these restructuring programmes are significant enough to exclude from the adjusted operating profit measure so as to better highlight the underlying performance (see note 4). There was no major restructuring in 2020.

Intangible charges – These represent charges relating to intangibles acquired through business combinations. These charges are excluded as they reflect past acquisition activity and do not necessarily reflect the current year performance of the Group.

Intangible amortisation charges in 2022 were £56m compared to a charge of £51m in 2021. This is due to increased amortisation from recent acquisitions which is partially offset by a reduction in amortisation from intangible assets at the end of their useful life and recent disposals. In 2022 and 2021, intangible charges included no impairment charges. In 2020, intangible charges were £80m including impairment charges of £12m.

Other net gains and losses – These represent profits and losses on the sale of subsidiaries, joint ventures, associates and other financial assets and are excluded from adjusted operating profit as they distort the performance of the Group as reported on a statutory basis. Other net gains and losses also includes costs related to business closures and acquisitions. Other net gains and losses in 2022 relate to the gains on the disposal of our international courseware local publishing businesses in Europe, French-speaking Canada and Hong Kong and a gain arising on a decrease in the deferred consideration payable on prior year acquisitions, offset by a loss on disposal of our international courseware local publishing businesses in South Africa due to recycling of currency translation adjustments and costs related to disposals and acquisitions. Other net gains and losses in 2021 largely related to the disposal of PIHE and the disposal of the K12 Sistemas business in Brazil offset by costs related to the acquisition of Faethm and the wind down of certain strategic review businesses. In 2020, they largely relate to the sale of the remaining interest in Penguin Random House (£180m gain).

UK pension discretionary increases - Charges in 2022 relate to one-off pension increases awarded to certain cohorts of pensioners in response to the cost of living crisis.

Adjusted operating profit should not be regarded as a complete picture of the Group's financial performance. For example, adjusted operating profit includes the benefits of major restructuring programmes but excludes the significant associated costs, and adjusted operating profit excludes costs related to acquisitions, and the amortisation of intangibles acquired in business combinations, but does not exclude the associated revenues. The Group's definition of adjusted operating profit may not be comparable to other similarly titled measures reported by other companies.

The Group operates in the following main geographic areas:

All figures in £ millions	Sales			Non-current assets	
	2022	2021	2020	2022	2021
UK	424	355	319	527	578
Other European countries	192	249	216	192	122
US	2,668	2,182	2,335	2,333	2,034
Canada	110	111	91	243	217
Asia Pacific	290	359	251	200	190
Other countries	157	172	185	17	18
Total	3,841	3,428	3,397	3,512	3,159

Sales are allocated based on the country in which the customer is located. This does not differ materially from the location where the order is received. The geographical split of non-current assets is based on the subsidiary's country of domicile. This is not materially different to the location of the assets. Non-current assets comprise investment property, property, plant and equipment, intangible assets and investments in joint ventures and associates.

3. Revenue from contracts with customers

The following tables analyse the Group's revenue streams. Courseware includes curriculum materials provided in book form and/or via access to digital content. Assessments includes integrated test development, processing and scoring services provided to governments, educational institutions, corporations and professional bodies. Services includes the operation of schools, colleges and universities, including sistemas in Brazil, until disposed, as well as the provision of online learning services in partnership with universities and other academic institutions. Comparative figures for 2021 and 2020 have been restated to reflect the move between segments.

The Group derived revenue from the transfer of goods and services over time and at a point in time in the following major product lines:

All figures in £ millions	Assessment & Qualifications	Virtual Learning	English Language Learning	Workforce Skills	Higher Education	Strategic Review	2022 Total
Courseware							
Products transferred at a point in time	64	–	110	2	302	148	626
Products and services transferred over time	21	–	25	–	588	6	640
	85	–	135	2	890	154	1,266
Assessments							
Products transferred at a point in time	169	–	5	14	–	–	188
Products and services transferred over time	1,190	–	138	142	–	–	1,470
	1,359	–	143	156	–	–	1,658
Services							
Products transferred at a point in time	–	–	29	–	–	–	29
Products and services transferred over time	–	820	14	46	8	–	888
	–	820	43	46	8	–	917
Total	1,444	820	321	204	898	154	3,841

							2021
All figures in £ millions	Assessment & Qualifications	Virtual Learning	English Language Learning	Workforce Skills	Higher Education	Strategic Review	Total
Courseware							
Products transferred at a point in time	62	–	109	–	283	180	634
Products and services transferred over time	30	–	26	–	558	17	631
	92	–	135	–	841	197	1,265
Assessments							
Products transferred at a point in time	173	–	6	16	–	–	195
Products and services transferred over time	973	–	72	119	–	–	1,164
	1,146	–	78	135	–	–	1,359
Services							
Products transferred at a point in time	–	–	22	–	–	14	36
Products and services transferred over time	–	713	3	37	8	7	768
	–	713	25	37	8	21	804
Total	1,238	713	238	172	849	218	3,428

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Notes to the consolidated financial statements *continued*

3. Revenue from contracts with customers continued

							2020
All figures in £ millions	Assessment & Qualifications	Virtual Learning	English Language Learning	Workforce Skills	Higher Education	Strategic Review	Total
Courseware							
Products transferred at a point in time	66	–	106	–	313	185	670
Products and services transferred over time	27	–	24	–	630	15	696
	93	–	130	–	943	200	1,366
Assessments							
Products transferred at a point in time	138	–	3	7	–	–	148
Products and services transferred over time	887	–	61	123	–	–	1,071
	1,025	–	64	130	–	–	1,219
Services							
Products transferred at a point in time	–	–	22	–	–	22	44
Products and services transferred over time	–	692	2	33	13	28	768
	–	692	24	33	13	50	812
Total	1,118	692	218	163	956	250	3,397

a. Nature of goods and services

The following is a description of the nature of the Group's performance obligations within contracts with customers broken down by revenue stream, along with significant judgements and estimates made within each of those revenue streams.

Courseware

Key areas of estimation

The level of provisions required for anticipated returns is estimated based on historical experience, customer buying patterns and retailer behaviours including stock levels.

Revenue is generated from customers through the sales of print and digital courseware materials to schools, bookstores and direct to individual learners. Goods and services may be sold separately or purchased together in bundled packages. The goods and services included in bundled arrangements are considered distinct performance obligations, except for where Pearson provides both a licence of intellectual property and an ongoing hosting service. As the licence of intellectual property is only available with the concurrent hosting service, the licence is not treated as a distinct performance obligation separate from the hosting service.

The transaction price is allocated between distinct performance obligations on the basis of their relative standalone selling prices.

In determining the transaction price, variable consideration exists in the form of discounts and anticipated returns. Discounts reduce the transaction price on a given transaction. A provision for anticipated returns is made based primarily on historical return rates, customer buying patterns and retailer behaviours including stock levels (see note 24). If these estimates do not reflect actual returns in future periods then revenues could be understated or overstated for a particular period. Variable consideration as described above is determined using the expected value approach. The sales return liability at the end of 2022 was £53m (2021: £83m; 2020: £86m). This represents 8% of courseware sales transferred at a point in time.

While payment for these goods and services generally occurs at the start of these arrangements, the length of time between payment and delivery of the performance obligations is generally short-term in nature or the reason for early payment relates to reasons other than financing, including customers securing a vendor in a longer-term arrangement or the transfer of goods or services is at the discretion of the customer. For these reasons and the use of the practical expedient on short-term financing, significant financing components are not recognised within Courseware transactions.

Revenue from the sale of physical books is recognised at a point in time when control passes. This is generally at the point of shipment when title passes to the customer, when the Group has a present right to payment and the significant risks and rewards of ownership have passed to the customer. Revenue from physical books sold through the direct print rental method is recognised over the rental period, as the customer is simultaneously receiving and consuming the benefits of this rental service through the passage of time.

Revenue from the sale of digital courseware products is recognised on a straight-line basis over the subscription period, unless hosted by a third-party or representative of a downloadable product, in which case Pearson has no ongoing obligation and recognises revenue when control transfers as the customer is granted access to the digital product.

Revenue from the sale of 'off-the-shelf' software is recognised on delivery or on installation of the software where that is a condition of the contract. In certain circumstances, where installation is complex, revenue is recognised when the customer has completed their acceptance procedures.

Assessments

Revenue is primarily generated from multi-year contractual arrangements related to large-scale assessment delivery, such as contracts to process qualifying tests for individual professions and government departments, and is recognised as performance occurs. Under these arrangements, while the agreement spans multiple years, the contract duration has been determined to be each testing cycle based on contract structure, including clauses regarding termination.

While in some cases the customer may have the ability to terminate during the term for convenience, significant financial or qualitative barriers exist limiting the potential for such terminations in the middle of a testing cycle.

Within each testing cycle, a variety of service activities are performed such as test administration, delivery, scoring, reporting, item development, operational services and programme management. These services are not treated as distinct in the context of the customer contract as Pearson provides an integrated managed service offering and these activities are accounted for together as one comprehensive performance obligation.

Within each testing cycle, the transaction price may contain both fixed and variable amounts. Variable consideration within these transactions primarily relates to expected testing volumes to be delivered in the cycle. The assumptions, risks and uncertainties inherent to long-term contract accounting can affect the amounts and timing of revenue and related expenses reported. Variable consideration is measured using the expected value method, except where amounts are contingent upon a future event's occurrence, such as performance bonuses. Such event-driven contingency payments are measured using the most likely amount approach. In estimating and constraining variable consideration, historical experience, current trends and local market conditions are considered. To the extent that a higher degree of uncertainty exists regarding variable consideration, these amounts are excluded from the transaction price and recognised when the uncertainty is reasonably removed.

Customer payments are generally defined in the contract through a payment schedule, which may require customer acceptance for services rendered. Pearson has a history of providing satisfactory services which are accepted by the customer. While a delay between rendering of services and payment may exist, payment terms are within 12 months and the Group has elected to use the practical expedient available in IFRS 15 'Revenue from Contracts with Customers' and not identify a significant financing component on these transactions.

Revenue is recognised for Assessment contracts over time as the customer is benefiting as performance takes place through a continuous transfer of control to the customer. This continuous transfer of control to the customer is supported by clauses in the contracts which may allow the customer to terminate for convenience, compensate us for work performed to date, and take possession of work in process.

As control transfers over time, revenue is recognised based on the extent of progress towards completion of the performance obligation. The selection of the method to measure progress towards completion requires judgement and is based on the nature of the services provided. Revenue is recognised on a percentage of costs basis, calculated using the proportion of the total estimated costs incurred to date. From 2021, the proportion of estimated costs incurred to date was primarily based on historical cost analysis for similar groups of contracts, with regular true-ups to contract costs throughout the contract period. Previously, the proportion of estimated costs incurred to date was based on individual contract analysis. The change in input methodology did not result in a material impact on revenue recognition. Percentage of completion is used to recognise the transfer of control of services provided as these services are not provided evenly throughout the testing cycle and involve varying degrees of effort during the contract term.

Losses on contracts are recognised in the period in which the loss first becomes foreseeable. Contract losses are determined to be the amount by which estimated total costs of the contract exceed the estimated total revenues that will be generated.

In Assessments contracts driven primarily by transactions directly to end users, Pearson's main obligation to the customer involves test delivery and scoring. Test delivery and scoring are defined as a single performance obligation delivered over time whether the test is subsequently manually scored or digitally scored on the day of the assessment. Customers may also purchase print and digital supplemental materials. Print products in this revenue stream are recognised at a point in time when control passes to the customer upon shipment. Recognition of digital revenue will occur based on the extent of Pearson's ongoing hosting obligation.

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Notes to the consolidated financial statements *continued*

3. Revenue from contracts with customers continued

Services

Revenue is primarily generated from multi-year contractual arrangements related to large-scale educational service delivery to academic institutions, such as schools and higher education universities. Under these arrangements, while an agreement may span multiple years, the contract duration has been determined to be each academic period based on the structure of contracts, including clauses regarding termination. While in some cases the customer may have the ability to terminate during the term for convenience, significant financial or qualitative barriers exist limiting the potential for such terminations in the middle of an academic period. The academic period for this customer base is normally an academic year for schools and a semester for higher education universities.

Within each academic period, a variety of services are provided such as programme development, student acquisition, education technology and student support services. These services are not distinct in the context of the customer contract as Pearson provides an integrated managed service offering and these activities are accounted for together as a comprehensive performance obligation.

Where Services are provided to university customers, volume and transaction price are fixed at the start of the semester. Where Services are provided to school customers, the transaction price may contain both fixed and variable amounts which require estimation during the academic period. Estimation is required where consideration is based upon average enrolments or other metrics which are not known at the start of the academic year. Variable consideration is measured using the expected value method. Historical experience, current trends, local circumstances and customer-specific funding formulas are considered in estimating and constraining variable consideration. To the extent that a higher degree of uncertainty exists regarding variable consideration, these amounts are excluded from the transaction price and recognised when the uncertainty is reasonably removed.

Customer payments are generally defined in the contract as occurring shortly after invoicing. Where there is a longer payment term offered to a customer through a payment schedule, payment terms are within 12 months and the Group has elected to use the practical expedient available in IFRS 15 and not identify a significant financing component on these transactions.

Revenue is recognised for Service contracts over time as the customer is benefiting as performance takes place through a continuous transfer of control to the customer. This continuous transfer of control to the customer is supported by clauses in the contracts which may allow the customer to terminate for convenience, compensate for work performed to date, and take possession of work in process.

As control transfers over time, revenue is recognised based on the extent of progress towards completion of the performance obligation. The selection of the method to measure progress towards completion requires judgement and is based on the nature of the products or services provided. Within the comprehensive service obligation, the timing of services occurs relatively evenly over each academic period and, as such, time elapsed is used to recognise the transfer of control to the customer on a straight-line basis.

Losses on contracts are recognised in the period in which the loss first becomes foreseeable. Contract losses are determined to be the amount by which estimated total costs of the contract exceed the estimated total revenues that will be generated.

In cases of optional or add-on purchases, institutions may purchase physical goods priced at their standalone value, which are accounted for separately and recognised at the point in time when control passes to the customer upon shipment.

b. Disaggregation of revenue

The tables in notes 2 and 3 show revenue from contracts with customers disaggregated by operating segment, geography and revenue stream. These disaggregation categories are appropriate as they represent the key groupings used in managing and evaluating underlying performance of each of the businesses. The categories also reflect groups of similar types of transactional characteristics, among similar customers, with similar accounting conclusions.

c. Contract balances

Transactions within the Courseware revenue stream generally entail customer billings at or near the contract's inception and accordingly Courseware deferred income balances are primarily related to subscription performance obligations to be delivered over time.

Transactions within the Assessments and Services revenue streams generally entail customer billings over time based on periodic intervals, progress towards milestones or enrolment census dates. As the performance obligations within these arrangements are delivered over time, the extent of accrued income or deferred income will ultimately depend upon the difference between revenue recognised and billings to date.

Refer to note 22 for opening and closing balances of accrued income. Refer to note 24 for opening and closing balances of deferred income. Revenue recognised during the period from changes in deferred income was driven primarily by the release of revenue over time from digital subscriptions.

d. Contract costs

The Group capitalises incremental costs to obtain contracts with customers where it is expected these costs will be recoverable. Incremental costs to obtain contracts with customers are considered those which would not have been incurred if the contract had not been obtained. For the Group, these costs relate primarily to sales commissions. The Group has elected to use the practical expedient as allowable by IFRS 15 whereby such costs will be expensed as incurred where the expected amortisation period is one year or less. Where the amortisation period is greater than one year, these costs are amortised over the contract term on a systematic basis consistent with the transfer of the underlying goods and services within the contract to which these costs relate, which will generally be on a rateable basis.

The Group does not recognise any material costs to fulfil contracts with customers as these types of activities are governed by other accounting standards.

There were no deferred contract costs in 2022, 2021 or 2020.

e. Remaining transaction price

The below table depicts the remaining transaction price on unsatisfied or partially unsatisfied performance obligations from contracts with customers.

	2022						
	Sales	Deferred income	Committed sales	Total remaining transaction price	2023	2024	2025 and later
All figures in £ millions							
Courseware							
Products transferred at a point in time	626	1	–	1	1	–	–
Products and services transferred over time	640	95	–	95	56	14	25
Assessments							
Products transferred at a point in time	188	–	–	–	–	–	–
Products and services transferred over time	1,470	262	472	734	524	206	4
Services							
Products transferred at a point in time	29	–	–	–	–	–	–
Products and services transferred over time – subscriptions	351	20	7	27	27	–	–
Products and services transferred over time – other ongoing performance obligations	537	22	225	247	247	–	–
Total	3,841	400	704	1,104	855	220	29

Financial statements

Notes to the consolidated financial statements *continued*

3. Revenue from contracts with customers continued

							2021
All figures in £ millions	Sales	Deferred income	Committed sales	Total remaining transaction price	2022	2023	2024 and later
Courseware							
Products transferred at a point in time	634	1	–	1	1	–	–
Products and services transferred over time	631	93	–	93	60	11	22
Assessments							
Products transferred at a point in time	195	–	–	–	–	–	–
Products and services transferred over time	1,164	255	442	697	503	191	3
Services							
Products transferred at a point in time	36	–	–	–	–	–	–
Products and services transferred over time – subscriptions	290	13	10	23	23	–	–
Products and services transferred over time – other ongoing performance obligations	478	24	220	244	244	–	–
Total	3,428	386	672	1,058	831	202	25
							2020
All figures in £ millions	Sales	Deferred income	Committed sales	Total remaining transaction price	2021	2022	2023 and later
Courseware							
Products transferred at a point in time	670	–	–	–	–	–	–
Products and services transferred over time	696	105	14	119	84	14	21
Assessments							
Products transferred at a point in time	148	1	–	1	1	–	–
Products and services transferred over time	1,071	217	413	630	426	203	1
Services							
Products transferred at a point in time	44	–	–	–	–	–	–
Products and services transferred over time – subscriptions	323	18	10	28	27	1	–
Products and services transferred over time – other ongoing performance obligations	445	18	195	213	213	–	–
Total	3,397	359	632	991	751	218	22

Committed sales amounts are equal to the transaction price from contracts with customers, excluding those amounts previously recognised as revenue and amounts currently recognised in deferred income. The total of committed sales and deferred income is equal to the remaining transaction price. Time bands stated above represent the expected timing of when the remaining transaction price will be recognised as revenue.

4. Operating expenses

All figures in £ millions	2022	2021	2020
By function:			
Cost of goods sold	2,046	1,747	1,767
Operating expenses			
Distribution costs	61	62	59
Selling, marketing and product development costs	564	521	572
Administrative and other expenses	823	802	816
Restructuring costs	150	214	–
Other income	(49)	(37)	(45)
Total net operating expenses	1,549	1,562	1,402
Other net gains and losses	(24)	(63)	(178)
Total	3,571	3,246	2,991

Other income includes freight income and sublet income. Included in administrative and other expenses are research and efficacy costs of £10m (2021: £12m; 2020: £11m). Other net gains in 2022, largely relate to the gain on the sales of certain businesses (see note 31) and a gain arising on a decrease in the deferred consideration payable on prior year acquisitions, offset by costs related to disposals and acquisitions. In 2021, other net gains and losses largely relate to the sale of interests in PIHE in South Africa and the school business in Brazil. In 2020, other net gains and losses largely relate to the sale of the remaining interest in Pearson Random House (£180m gain).

In August 2022, the Group announced a major restructuring programme to run in 2022. The programme includes efficiencies in product and content, support costs, technology and corporate property. The restructuring costs in 2022 of £150m mainly relate to severance and impairment of right-of-use property assets. In March 2021, the Group announced a major restructuring programme to run in 2021, principally comprising the reorganisation of the Group into five global business divisions and the simplification of the Group's property portfolio. The costs of these programmes have been excluded from adjusted operating profit so as to better highlight the underlying performance (see note 8). An analysis of major restructuring costs are as follows:

All figures in £ millions	2022	2021	2020
By nature:			
Product costs	11	19	–
Employee costs	73	32	–
Depreciation and impairment of non-current assets	51	145	–
Property and facilities	7	11	–
Technology and communications	1	3	–
Professional and outsourced services	7	4	–
Total restructuring – operating expenses	150	214	–

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Notes to the consolidated financial statements *continued*

4. Operating expenses continued

All figures in £ millions	Notes	2022	2021	2020
By nature:				
Royalties expensed		194	185	191
Other product costs		412	353	349
Employee benefit expense	5	1,605	1,365	1,337
Contract labour		73	69	67
Employee-related expense		52	21	30
Promotional costs		268	239	233
Depreciation and impairment of property, plant and equipment and investment property	10	136	241	125
Amortisation and impairment of intangible assets – product development	20	303	279	280
Amortisation and impairment of intangible assets – software	11	125	117	112
Amortisation and impairment of intangible assets – other	11	54	50	80
Property and facilities		102	124	85
Technology and communications		221	215	216
Professional and outsourced services		501	477	498
Other general and administrative costs		76	58	71
Costs capitalised		(478)	(447)	(460)
Other net gains and losses		(24)	(63)	(178)
Other income		(49)	(37)	(45)
Total		3,571	3,246	2,991

During the year the Group obtained the following services from the Group's auditors, which changed to EY in 2022 and was PwC in 2021 and 2020:

All figures in £ millions	2022	2021	2020
The audit of parent company and consolidated financial statements	6	5	5
The audit of the company's subsidiaries	1	2	2
Total audit fees	7	7	7
Audit-related and other assurance services	–	–	–
Other non-audit services	–	–	–
Total other services	–	–	–
Total non-audit services	–	–	–
Total	7	7	7

Reconciliation between audit and non-audit service fees is shown below:

All figures in £ millions	2022	2021	2020
Group audit fees including fees for attestation under section 404 of the Sarbanes-Oxley Act	7	7	7
Non-audit fees	–	–	–
Total	7	7	7

Fees for attestation under section 404 of the Sarbanes-Oxley Act are allocated between fees payable for the audits of consolidated and subsidiary accounts.

5. Employee information

All figures in £ millions	Notes	2022	2021	2020
Employee benefit expense				
Wages and salaries (including termination costs)		1,382	1,180	1,152
Social security costs		113	95	96
Share-based payment costs	26	35	28	29
Retirement benefits – defined contribution plans	25	46	37	47
Retirement benefits – defined benefit plans	25	29	25	13
Total		1,605	1,365	1,337

An additional £3m of share-based payment costs (2021: £nil; 2020: £nil) in respect of remuneration for post-acquisition services for recent acquisitions is included in other net gains and losses in the income statement.

The details of the emoluments of the Directors of Pearson plc are shown in the report on Directors' remuneration.

Average number employed	2022	2021	2020
Employee numbers			
UK	3,244	3,395	3,304
Other European countries	809	878	886
US	11,357	11,757	11,432
Canada	522	593	648
Asia Pacific	3,369	2,738	2,812
Other countries	1,137	1,383	2,109
Total	20,438	20,744	21,191

6. Net finance costs

All figures in £ millions	Notes	2022	2021 ¹	2020 ¹
Interest payable on financial liabilities at amortised cost and associated derivatives		(32)	(30)	(31)
Interest on lease liabilities		(25)	(27)	(41)
Net foreign exchange losses		–	–	(6)
Interest on deferred and contingent consideration		(5)	–	–
Interest on tax provisions		(7)	(11)	(7)
Derivatives not in a hedge relationship		(2)	–	(22)
Finance costs		(71)	(68)	(107)
Interest receivable on financial assets at amortised cost		18	5	9
Interest on lease receivables		5	6	9
Net finance income in respect of retirement benefits	25	9	4	6
Fair value remeasurement of disposal proceeds		–	6	26
Fair value movements on investments held at fair value		28	20	26
Net foreign exchange gains		1	1	–
Interest on tax provisions		35	–	–
Derivatives not in a hedge relationship		27	20	–
Finance income		123	62	76
Net finance income/(costs)		52	(6)	(31)
Analysed as:				
Net interest payable reflected in adjusted earnings		(1)	(57)	(61)
Other net finance income		53	51	30
Net finance income/(costs)		52	(6)	(31)

1. Comparative balances have been restated – see Note 1b.

Net movement in the fair value of hedges is further explained in note 16. Derivatives not in a hedge relationship include fair value movements in the interest rate and cross-currency interest rate swaps. For further information on adjusted measures above, see note 8.

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Notes to the consolidated financial statements *continued*

7. Income tax

All figures in £ millions	Notes	2022	2021 ¹	2020 ¹
Current tax				
Charge in respect of current year		(127)	(103)	(18)
Adjustments in respect of prior years		18	(12)	4
Total current tax charge		(109)	(115)	(14)
Deferred tax				
In respect of temporary differences		29	103	(34)
Other adjustments in respect of prior years		1	13	(2)
Total deferred tax credit/(charge)	13	30	116	(36)
Total tax (charge)/credit		(79)	1	(50)

1. Comparative balances have been restated – see Note 1b.

The adjustments in respect of prior years in 2022 is primarily due to movements in provisions for tax uncertainties, whilst in 2021 and 2020 the differences primarily arise from revising the previous year's reported tax provision to reflect the tax returns subsequently filed. This results in a change between deferred and current tax as well as an absolute benefit to the total tax charge. The tax on the Group's profit before tax differs from the theoretical amount that would arise using the UK tax rate as follows:

All figures in £ millions	2022	2021	2020
Profit before tax	323	177	380
Tax calculated at UK rate (2022: 19%; 2021: 19%; 2020: 19%)	(62)	(34)	(72)
Effect of overseas tax rates	(12)	(24)	(7)
Effect of UK rate change	3	25	(5)
Joint venture and associate income reported net of tax	–	–	1
Intra-group financing benefit	–	7	14
Net expense not subject to tax	(9)	(9)	(7)
Gains and losses on sale of businesses not subject to tax	2	4	21
Unrecognised tax losses	3	9	(21)
Benefit from changes in local tax law	–	11	–
Benefit from US accounting method changes	–	11	–
Movement in provisions for tax uncertainties - current year	(23)	–	24
Adjustments in respect of prior years - movement in provisions for tax uncertainties	13	–	–
Adjustments in respect of prior years - other	6	1	2
Total tax (charge)/credit	(79)	1	(50)
UK	(41)	27	23
Overseas	(38)	(26)	(73)
Total tax (charge)/credit	(79)	1	(50)
Tax rate reflected in earnings	24.5%	(0.6)%	13.2%

1. Comparative balances have been restated – see Note 1b.

The movement in provisions for tax uncertainties primarily reflects releases due to the expiry of relevant statutes of limitation, settlement of certain audits and the establishment of provisions for new uncertain tax positions, primarily the potential State Aid exposure offset against the release of US provisions following the expiry of the statute of limitations for certain periods. The current tax liability of £43m (2021: £125m; 2020: £84m) includes £28m (2021: £104m; 2020: £104m) of provisions for tax uncertainties principally in respect of several matters in the US and the UK.

The Group is currently under audit in several countries, and the timing of any resolution of these audits is uncertain. In most countries, tax years up to and including 2017 are now statute barred from examination by tax authorities, however, a balance of £3m relates to certain remaining open issues. Of the remaining £25m balance, £1m relates to 2018, £14m to 2019, £5m to 2020, £3m to 2021 and £2m to 2022. The tax authorities may take a different view from management and the final liability may be greater than provided.

The matters provided for include a provision of £63m related to the potential State Aid exposure and the potential disallowance of intra-group charges. In relation to the potential State Aid exposure, a payment has been made in relation to the maximum potential exposure with the provision of £63m offset against this resulting in a £41m non-current tax debtor.

Contingent liabilities relating to tax are disclosed in note 34.

The tax rate reflected in adjusted earnings is calculated as follows:

All figures in £ millions	2022	2021	2020
Profit before tax	323	177	380
Adjustments:			
Cost of major restructuring	150	214	–
Other net gains and losses	(24)	(63)	(178)
Intangible charges	56	51	80
UK Pension discretionary increases	3	–	–
Other net finance income	(53)	(51)	(30)
Adjusted profit before tax	455	328	252
Total tax credit/(charge)	(79)	1	(50)
Adjustments:			
Tax benefit on cost of major restructuring	(37)	(47)	–
Tax charge on other net gains and losses	10	14	3
Tax benefit on intangible charges	(11)	(12)	(22)
Tax benefit on UK pensions discretionary increases	(1)	–	–
Tax charge on other net finance costs	13	8	10
Tax amortisation benefit on goodwill and intangibles	16	8	24
Benefit from changes in local tax law	–	(11)	–
Tax benefit on UK tax rate change	(1)	(25)	–
Other tax items	19	–	–
Adjusted tax charge	(71)	(64)	(35)
Tax rate reflected in adjusted earnings	15.6%	19.5%	13.7%

1. Comparative balances have been restated – see Note 1b.

For further information on adjusted measures above, see note 8.

The tax benefit/(charge) recognised in other comprehensive income is as follows:

All figures in £ millions	2022	2021	2020
Net exchange differences on translation of foreign operations	4	10	(13)
Fair value gain on other financial assets	1	(1)	–
Remeasurement of retirement benefit obligations	(12)	(61)	2
	(7)	(52)	(11)

1. Comparative balances have been restated – see Note 1b.

KJ

Key judgements

KE

Key areas of estimation

The application of tax legislation in relation to provisions for uncertain tax positions.

The level of provisions required in relation to uncertain tax positions is complex and each matter is separately assessed. The estimation of future settlement amounts is based on a number of factors including the status of the unresolved matter, clarity of legislation, range of possible outcomes and the statute of limitations.

Included in net expense not subject to tax are foreign taxes not creditable, the tax impact of share-based payments and other expenses not deductible.

Factors which may affect future tax charges include changes in tax legislation, transfer pricing regulations, the level and mix of profitability in different countries, and settlements with tax authorities.

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Notes to the consolidated financial statements *continued*

8. Earnings per share

Basic earnings per share is calculated by dividing the profit or loss attributable to equity shareholders of the company (earnings) by the weighted average number of ordinary shares in issue during the year, excluding ordinary shares purchased by the company and held as treasury shares.

Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares to take account of all dilutive potential ordinary shares and adjusting the profit attributable, if applicable, to account for any tax consequences that might arise from conversion of those shares.

Certain contingently issuable shares vested on 31 December 2022 but have not yet been issued, these shares are considered dilutive for 2022 but do not materially impact basic EPS.

All figures in £ millions	2022	2021 ¹	2020 ¹
Earnings for the year	244	178	330
Non-controlling interest	(2)	(1)	–
Earnings attributable to equity shareholders	242	177	330
Weighted average number of shares (millions)	738.1	754.1	755.4
Effect of dilutive share options (millions)	3.9	5.0	–
Weighted average number of shares (millions) for diluted earnings	742.0	759.1	755.4
Earnings per share (in pence per share)			
Basic	32.8p	23.5p	43.7p
Diluted	32.6p	23.3p	43.7p

1. Comparative balances have been restated – see Note 1b.

Adjusted

For additional detailed information on the calculation of adjusted measures, see pages 215-219 (Financial key performance indicators). See note 2 for details of specific items excluded from or included in adjusted operating profit in 2022, 2021 and 2020.

In order to show results from operating activities on a consistent basis, an adjusted earnings per share is presented. The Group's definition of adjusted earnings per share may not be comparable with other similarly titled measures reported by other companies.

Adjusted earnings is a non-GAAP (non-statutory) financial measure and is included as it is a key financial measure used by management to evaluate the performance of the Group. The measure also enables investors to more easily, and consistently, track the underlying operational performance of the Group and its business segments over time by separating out those items of income and expenditure relating to acquisition and disposal transactions, major restructuring programmes and certain other items that are also not representative of underlying performance.

Adjusted earnings per share is calculated as adjusted earnings divided by the weighted average number of shares in issue on an undiluted basis. The following items are excluded from or included in adjusted earnings:

Cost of major restructuring – In August 2022, the Group announced a major restructuring programme to run in 2022. The programme includes efficiencies in product and content, support costs, technology and corporate property. The restructuring costs in 2022 of £150m mainly relate to staff redundancies and impairment of right-of-use property assets. The 2022 charge includes the impact of updated assumptions related to the recoverability of right-of-use assets made in 2021. In 2021, restructuring costs of £214m mainly related to the impairment of right-of-use property assets, the write-down of product development assets and staff redundancies. The costs of these restructuring programmes are significant enough to exclude from the adjusted operating profit measure so as to better highlight the underlying performance (see note 4). There was no major restructuring in 2020.

Intangible charges – These represent charges relating to intangibles acquired through business combinations. These charges are excluded as they reflect past acquisition activity and do not necessarily reflect the current year performance of the Group. Intangible amortisation charges in 2022 were £56m compared to a charge of £51m in 2021. This is due to increased amortisation from recent acquisitions which is partially offset by a reduction in amortisation from intangible assets at the end of their useful life and recent disposals. In 2022 and 2021, intangible charges included no impairment charges. In 2020, intangible charges were £80m including impairment charges of £12m.

Other net gains and losses – These represent profits and losses on the sale of subsidiaries, joint ventures, associates and other financial assets and are excluded from adjusted operating profit as they distort the performance of the Group as reported on a statutory basis. Other net gains and losses also includes costs related to business closures and acquisitions. Other net gains and losses in 2022 relate to the gains on the disposal of our international courseware local publishing businesses in Europe, French-speaking Canada and Hong Kong and a gain arising on a decrease in the deferred consideration payable on prior year acquisitions, offset by a loss on disposal of our international courseware local publishing businesses in South Africa due to recycling of currency translation adjustments and costs related to disposals and acquisitions. Other net gains and losses in 2021 largely related to the disposal of PIHE and the disposal of the K12 Sistemas business in Brazil offset by costs related to the acquisition of Faethm and the wind down of certain strategic review businesses. In 2020, they largely relate to the sale of the remaining interest in Penguin Random House (£180m gain).

UK pension discretionary increases - Charges in 2022 relate to one-off pension increases awarded to certain cohorts of pensioners in response to the cost of living crisis.

Other net finance income/costs – These include finance costs in respect of retirement benefits, finance costs relating to acquisition and disposal transactions, fair value movements on investments classified as fair value through profit and loss, foreign exchange and other gains and losses on derivatives. Net finance income relating to retirement benefits is excluded as management does not believe that the consolidated income statement presentation under IAS 19 reflects the economic substance of the underlying assets and liabilities. Finance costs relating to acquisition or disposal transactions are excluded from adjusted earnings as they are considered part of the acquisition cost or disposal proceeds rather than being reflective of the underlying financing costs of the Group. Foreign exchange, fair value movements and other gains and losses are excluded from adjusted earnings as they represent short-term fluctuations in market value and are subject to significant volatility. Other gains and losses may not be realised in due course as it is normally the intention to hold the related instruments to maturity.

Tax – Tax on the above items is excluded from adjusted earnings. Where relevant, the Group also excludes the benefit from recognising previously unrecognised pre-acquisition and capital losses. The tax benefit from tax deductible goodwill and intangibles is added to the adjusted income tax charge as this benefit more accurately aligns the adjusted tax charge with the expected rate of cash tax payments. In addition, one off items such as the impact of the UK tax rate change and changes in local tax law have been excluded.

Non-controlling interest – Non-controlling interest for the above items is excluded from adjusted earnings.

The adjusted earnings per share includes both continuing and discontinued businesses on an undiluted basis when relevant. The Group's definition of adjusted earnings per share may not be comparable to other similarly titled measures reported by other companies.

The following tables reconcile the statutory income statement to the adjusted income statement.

	2022							
	Statutory income statement	Cost of major restructuring	Other net gains and losses	Intangible charges	UK Pension discretionary increases	Other net finance income/ costs	Other tax items	Adjusted income statement
All figures in £ millions								
Operating profit	271	150	(24)	56	3	–	–	456
Net finance costs	52	–	–	–	–	(53)	–	(1)
Profit before tax	323	150	(24)	56	3	(53)	–	455
Income tax	(79)	(37)	10	(11)	(1)	13	34	(71)
Profit for the year	244	113	(14)	45	2	(40)	34	384
Non-controlling interest	(2)	–	–	–	–	–	–	(2)
Earnings	242	113	(14)	45	2	(40)	34	382
Weighted average number of shares (millions)	738.1							738.1
Weighted average number of shares (millions) for diluted earnings	742.0							742.0
Earnings per share (basic)	32.8p							51.8p
Earnings per share (diluted)	32.6p							51.5p

	2021							
	Statutory income statement ¹	Cost of major restructuring	Other net gains and losses	Intangible charges	UK Pension discretionary increases	Other net finance income/ costs ¹	Other tax items	Adjusted income statement
All figures in £ millions								
Operating profit	183	214	(63)	51	–	–	–	385
Net finance costs	(6)	–	–	–	–	(51)	–	(57)
Profit before tax	177	214	(63)	51	–	(51)	–	328
Income tax	1	(47)	14	(12)	–	8	(28)	(64)
Profit for the year	178	167	(49)	39	–	(43)	(28)	264
Non-controlling interest	(1)	–	–	–	–	–	–	(1)
Earnings	177	167	(49)	39	–	(43)	(28)	263
Weighted average number of shares (millions)	754.1							754.1
Weighted average number of shares (millions) for diluted earnings	759.1							759.1
Earnings per share (basic)	23.5p							34.9p
Earnings per share (diluted)	23.3p							34.6p

1. Comparative balances have been restated – see Note 1b.

Financial statements

Notes to the consolidated financial statements *continued*

8. Earnings per share continued

	2020							
All figures in £ millions	Statutory income statement ¹	Cost of major restructuring	Other net gains and losses	Intangible charges	UK Pensions discretionary increases	Other net finance income/ costs ¹	Other tax items	Adjusted income statement
Operating profit	411	–	(178)	80	–	–	–	313
Net finance costs	(31)	–	–	–	–	(30)	–	(61)
Profit before tax	380	–	(178)	80	–	(30)	–	252
Income tax	(50)	–	3	(22)	–	10	24	(35)
Profit for the year	330	–	(175)	58	–	(20)	24	217
Non-controlling interest	–	–	–	–	–	–	–	–
Earnings	330	–	(175)	58	–	(20)	24	217
Weighted average number of shares (millions)	755.4							755.4
Weighted average number of shares (millions) for diluted earnings	755.4							755.4
Earnings per share (basic)	43.7p							28.7p
Earnings per share (diluted)	43.7p							28.7p

1. Comparative balances have been restated – see Note 1b.

9. Dividends

All figures in £ millions	2022	2021	2020
Final paid in respect of prior year 14.2p (2020: 13.5p; 2021: 13.5p)	107	102	101
Interim paid in respect of current year 6.6p (2020: 6.0p; 2021: 6.3p)	49	47	45
	156	149	146

The Directors are proposing a final dividend in respect of the financial year ended 31 December 2022 of 14.9p per equity share which will absorb an estimated £107m of shareholders' funds. It will be paid on 5 May 2023 to shareholders who are on the register of members on 24 March 2023. These financial statements do not reflect this dividend.

10. Property, plant and equipment and investment property

All figures in £ millions	Right-of-use assets			Owned assets			Total
	Investment property	Land and buildings	Plant and equipment	Land and buildings	Plant and equipment	Assets in the course of construction	
Cost							
At 1 January 2021	–	439	12	296	308	21	1,076
Exchange differences	–	–	–	2	(3)	–	(1)
Additions	–	32	–	8	17	39	96
Disposals and retirements	–	(6)	(7)	(100)	(72)	–	(185)
Reclassifications and transfers	–	–	–	35	–	(31)	4
Transfer to assets classified as held for sale	–	–	–	(15)	–	–	(15)
At 31 December 2021	–	465	5	226	250	29	975
Exchange differences	–	30	–	18	23	–	71
Additions	22	33	1	4	8	33	101
Transfers to investment property	174	(141)	–	(32)	(1)	–	–
Disposals of businesses (note 31)	–	(10)	–	(1)	(8)	–	(19)
Disposals and retirements	(6)	(23)	(1)	(5)	(39)	–	(74)
Reclassifications and transfers	–	–	–	13	27	(40)	–
Transfer to assets classified as held for sale	–	–	–	(45)	(3)	–	(48)
At 31 December 2022	190	354	5	178	257	22	1,006

All figures in £ millions	Right-of-use assets			Owned assets			Total
	Investment property	Land and buildings	Plant and equipment	Land and buildings	Plant and equipment	Assets in the course of construction	
Depreciation and impairment							
At 1 January 2021	–	(110)	(9)	(199)	(243)	–	(561)
Exchange differences	–	(1)	1	(1)	1	–	–
Charge for the year	–	(46)	(3)	(16)	(30)	–	(95)
Disposals and retirements	–	7	6	99	71	–	183
Reclassifications and transfers	–	–	–	(5)	7	–	2
Impairment	–	(119)	–	(22)	(5)	–	(146)
Transfer to assets classified as held for sale	–	–	–	8	–	–	8
At 31 December 2021	–	(269)	(5)	(136)	(199)	–	(609)
Exchange differences	–	(17)	–	(14)	(18)	–	(49)
Transfers to investment property	(105)	101	–	3	1	–	–
Charge for the year	(6)	(44)	(1)	(13)	(26)	–	(90)
Disposals of businesses (note 31)	–	2	–	1	5	–	8
Disposals and retirements	–	13	1	5	39	–	58
Reclassifications and transfers	–	–	–	–	–	–	–
Impairment	(19)	(15)	–	(9)	(3)	–	(46)
Transfer to assets classified as held for sale	–	–	–	30	2	–	32
At 31 December 2022	(130)	(229)	(5)	(133)	(199)	–	(696)
Carrying amounts							
At 1 January 2021	–	329	3	97	65	21	515
At 31 December 2021	–	196	–	90	51	29	366
At 31 December 2022	60	125	–	45	58	22	310



Key areas of estimation

The recoverability of right-of-use assets and in particular assumptions related to the ability to sublease vacant leased assets in the future.

Depreciation expense of £45m (2021: £40m; 2020: £44m) has been included in the income statement in cost of goods sold and £45m (2021: £55m; 2020: £81m) in operating expenses. The impairment charge of £46m (2021: £146m; 2020: £nil) has been included within operating expenses within the income statement.

Property, plant and equipment (including investment property) assets are assessed for impairment triggers annually or when triggering events occur. In 2022, similar to 2021, as part of a major restructuring programme, the Group continued to simplify its property portfolio, reducing the overall office space required. All property related assets were assessed for impairment as a result of this triggering event and impairment charges of £46m (2021: £141m) have been recognised within costs of major restructuring (see note 4 for details). The recoverability of certain of the Group's right-of-use assets is now based on the Group's ability to sublease vacant space. This involves the use of assumptions related to future subleases including the achievable rent, lease start dates, lease incentives such as rent free periods and the discount rate applied. Should the future sublease outcomes be more or less favourable than the assumptions used by management this could result in additional impairment charges or reversals of impairment charges.

Investment property

Buildings, or portions of buildings, that are no longer occupied by the Group and are held for operating lease rental are classified as investment property. Investment property includes both, right-of-use assets and owned assets. The Group recognised rental income of £3m (2021: £nil; 2020 £nil) in relation to properties classified as investment property. Investment property is measured using the cost model. As a result of recent impairments, the fair value of investment property is equal to the carrying value. The fair value of investment property has been determined using a discounted cash flow model. The valuation model is internally generated but uses inputs from external, independent property valuers, having appropriate recognised professional qualifications and recent experience in the location and category of the property being valued. The valuations require the application of judgement and involve the use of known inputs for existing contracted subleases as well as assumptions related to future potential subleases including the achievable rent, lease start dates, lease incentives such as rent free periods and the discount rate applied. The fair value measurement of investment properties has been classified as level 3 within the fair value hierarchy based on the inputs and valuation technique used. Should the future sublease outcomes be more or less favourable than the assumptions used by management this could result in additional impairment charges or reversals of impairment charges.

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Notes to the consolidated financial statements *continued*

11. Intangible assets

All figures in £ millions	Goodwill	Software	Acquired customer lists, contracts and relationships	Acquired trademarks and brands	Acquired publishing rights	Other intangibles acquired	Total
Cost							
At 1 January 2021	2,094	1,104	751	198	97	349	4,593
Exchange differences	8	5	4	(2)	–	(2)	13
Additions – internal development	–	110	–	–	–	–	110
Additions – purchased	–	2	–	–	–	–	2
Disposals and retirements	–	(135)	–	(25)	–	(43)	(203)
Acquisition of subsidiary (note 30)	43	–	–	–	–	27	70
Disposal of subsidiary (note 31)	–	–	(14)	(3)	–	(10)	(27)
Transfers	–	1	–	–	–	–	1
At 31 December 2021	2,145	1,087	741	168	97	321	4,559
Exchange differences	206	83	80	20	5	44	438
Additions – internal development	–	86	–	–	–	–	86
Additions – purchased	–	4	–	–	–	–	4
Disposals and retirements	–	(131)	–	–	–	–	(131)
Acquisition of subsidiary (note 30)	204	–	37	6	1	66	314
Disposal of subsidiary (note 31)	(75)	(9)	(20)	(8)	–	(1)	(113)
Transfers	–	(5)	–	–	–	–	(5)
At 31 December 2022	2,480	1,115	838	186	103	430	5,152

All figures in £ millions	Goodwill	Software	Acquired customer lists, contracts and relationships	Acquired trademarks and brands	Acquired publishing rights	Other intangibles acquired	Total
Amortisation and impairment							
At 1 January 2021	–	(676)	(594)	(158)	(95)	(328)	(1,851)
Exchange differences	–	(5)	(4)	1	(1)	4	(5)
Charge for the year	–	(113)	(34)	(8)	–	(8)	(163)
Impairment charge	–	(4)	–	–	–	–	(4)
Disposals and retirements	–	135	–	25	–	43	203
Disposal of subsidiary (note 31)	–	–	12	2	–	10	24
Transfers	–	6	–	–	–	–	6
At 31 December 2021	–	(657)	(620)	(138)	(96)	(279)	(1,790)
Exchange differences	–	(49)	(65)	(16)	(5)	(37)	(172)
Charge for the year	–	(125)	(33)	(8)	–	(13)	(179)
Impairment charge	–	–	–	–	–	–	–
Disposals and retirements	–	130	–	–	–	–	130
Disposal of subsidiary (note 31)	–	8	20	7	–	1	36
Transfers	–	–	–	–	–	–	–
At 31 December 2022	–	(693)	(698)	(155)	(101)	(328)	(1,975)
Carrying amounts							
At 1 January 2021	2,094	428	157	40	2	21	2,742
At 31 December 2021	2,145	430	121	30	1	42	2,769
At 31 December 2022	2,480	422	140	31	2	102	3,177

Goodwill

The goodwill carrying value of £2,480m (2021: £2,145m) relates to acquisitions completed after 1 January 1998. Prior to 1 January 1998, all goodwill was written off to reserves on the date of acquisition. For acquisitions completed between 1 January 1998 and 31 December 2002, no value was ascribed to intangibles other than goodwill which was amortised over a period of up to 20 years. On adoption of IFRS on 1 January 2003, the Group chose not to restate the goodwill balance and at that date the balance was frozen (i.e. amortisation ceased). If goodwill had been restated, then a significant value would have been ascribed to other intangible assets, which would be subject to amortisation, and the carrying value of goodwill would be significantly lower. For acquisitions completed after 1 January 2003, value has been ascribed to other intangible assets which are amortised.

Software and acquired intangible assets

Acquired intangible assets are valued separately for each acquisition. For material business combinations, the valuation is carried out by an independent valuation specialist. The primary method of valuation used is the discounted cash flow method. Acquired intangibles are amortised either on a straight line basis or using an amortisation profile based on the projected cash flows underlying the acquisition date valuation of the intangible asset, which generally results in a larger proportion of amortisation being recognised in the early years of the asset's life, depending on the individual asset. The Group keeps the expected pattern of consumption under review. Other intangibles acquired includes technology.

Amortisation of £32m (2021: £25m; 2020: £22m) is included in the income statement in cost of goods sold and £147m (2021: £138m; 2020: £158m) in operating expenses. Impairment charges of £nil (2021; £4m; 2020: £12m) are included in operating expenses within the income statement, of which £nil (2021: £4m; 2020: £nil) relates to software, £nil (2021: £nil; 2020: £2m) relates to customer lists, contracts and relationships, and £nil (2021: £nil; 2020: £10m) to other intangibles acquired.

The range of useful economic lives for each major class of intangible asset (excluding goodwill and software) is shown below:

	2022
	Useful economic life
Class of intangible asset	
Acquired customer lists, contracts and relationships	3-20 years
Acquired trademarks and brands	2-20 years
Acquired publishing rights	5-20 years
Other intangibles acquired	2-20 years

The expected amortisation profile of acquired intangible assets is shown below:

	2022				
	One to five years	Six to ten years	Eleven to fifteen years	Sixteen to twenty years	Total
All figures in £ millions					
Class of intangible asset					
Acquired customer lists, contracts and relationships	92	30	10	8	140
Acquired trademarks and brands	24	6	1	–	31
Acquired publishing rights	2	–	–	–	2
Other intangibles acquired	82	20	–	–	102

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Notes to the consolidated financial statements *continued*

11. Intangible assets continued

Impairment tests for cash-generating units (CGUs) containing goodwill

Impairment tests have been carried out where appropriate as described below. Goodwill was allocated to CGUs, or an aggregation of CGUs, where goodwill could not be reasonably allocated to individual business units. CGUs were revised in 2021. Impairment reviews were conducted on these revised CGUs as summarised below:

2022 CGUs	
All figures in £ millions	Goodwill
Assessment & Qualifications	1,361
Virtual Learning	443
English Language Learning	259
Workforce Skills	348
Higher Education	69
Total	2,480

2021 CGUs	
All figures in £ millions	2021 Goodwill
Assessment & Qualifications	1,198
Virtual Learning	395
English Language Learning	153
Workforce Skills	223
Higher Education	68
Strategic Review (includes the separate CGUs of China, India, South Africa, Canada and Other Strategic Review)	108
Total	2,145

Goodwill is tested at least annually for impairment. The recoverable amount of each aggregated CGU is based on the higher of value in use and fair value less costs of disposal. The impairment assessment is based on value in use. Other than goodwill there are no intangible assets with indefinite lives. No impairments of goodwill were recorded in 2022 or 2021.

KJ

Key judgements

The allocation of goodwill to the cash-generating units and groups of cash-generating units.

KE

Key areas of estimation

The recoverability of goodwill balances. Key assumptions used in goodwill impairment testing are discount rates, perpetuity growth rates, forecast sales growth rates and forecast operating profits.

The valuation of acquired intangible assets recognised on the acquisition of a business. See note 30.

Determination of CGUs and reallocation of goodwill

Pearson identifies its CGUs based on its operating model and how data is collected and reviewed for management reporting and strategic planning purposes in accordance with IAS 36 'Impairment of Assets'. The CGUs and CGU aggregations reflect the level at which goodwill is monitored by management.

In 2021, the CGUs and aggregations of CGUs were revised to take into account the announcement and implementation of a new strategy including five new business divisions and a strategic review division.

In 2021, goodwill was reallocated to the new CGUs and aggregations of CGUs. The majority of the goodwill balances were directly mapped from one previous CGU (or CGU aggregation) to one newly created CGU (or CGU aggregation). Where it was not possible to directly map the goodwill it was reallocated using a relative value method. The key area where the relative value method was used was for the goodwill related to the previous International CGU aggregation which was reallocated across the newly created CGU aggregations where applicable.

In 2022, the separate CGUs of China, South Africa and Canada have been disposed. The goodwill related to the Strategic Review CGU has been reallocated between businesses disposed and businesses retained. All of the goodwill related to businesses retained has since been transferred to the Assessment & Qualifications CGU aggregation.

Key assumptions

For the purpose of estimating the value in use of the CGUs, management has used an income approach based on present value techniques. The calculations for all CGUs use cash flow projections based on financial budgets approved by management covering a four-year period, except for Virtual Learning which for OPM uses a longer range plan out to 2038 reflecting the term of existing contracts.

The key assumptions used by management in the value in use calculations were:

Discount rates – The discount rates are based on the Group's weighted average cost of capital, where the cost of equity is calculated based on the risk-free rate of government bonds, adjusted for a risk premium to reflect the increased risk in investing in equities. Where CGUs cover multiple territories, a blended risk-free rate is used. A further risk premium is assessed for each CGU. The average pre-tax discount rates range from 11.6% to 12.0% (2021: pre-tax 8.9% to 17.1%).

Perpetuity growth rates – The perpetuity growth rates are based on inflation trends. A perpetuity growth rate of 2% (2021: 2%) was used for cash flows subsequent to the approved budget period for CGUs operating primarily in mature markets. This perpetuity growth rate is a conservative rate and is considered to be lower than the long-term historical growth rates of the underlying territories in which the CGU operates and the long-term growth rate prospects of the sectors in which the CGU operates. Blended growth rate of 3.5% (2021: 2.0% to 5.0%) was used for cash flows subsequent to the approved budget period for ELL which has a higher exposure to emerging markets with higher inflation. This geographically blended growth rate is generally in line with the long-term historical growth rates in those markets. The longer-term plan prepared for OPM focuses on delivery of existing contracts until their expiration, as such, a perpetuity growth rate was not applied to OPM cashflows within the Virtual Learning CGU.

The key assumptions used by management in setting the financial budgets were as follows:

Forecast sales growth rates – Forecast sales growth rates are based on past experience adjusted for the strategic direction and near-term investment priorities within each CGU. Key assumptions include growth in English Language Learning and Workforce Skills – in part due to contribution from new acquisitions, stabilisation and recovery in Higher Education, growth in Virtual Learning - albeit impacted by the unwinding of COVID-19 enrolments and school churn in Virtual Schools in the short term, and steady growth in Assessments and Qualifications. The sales forecasts use average nominal growth rates of low-mid single digits for mature businesses in mature markets and double digit growth where there is significant organic and inorganic investment. The Virtual Learning CGU assumes low-single digit growth for Virtual Schools, and delivery of existing contracts in OPM which is under strategic review.

Operating profits – Operating profits are forecast based on historical experience of operating margins, adjusted for the impact of changes to product costs, committed restructuring plans, strategic developments and new business cases to the extent they have been formally approved prior to the balance sheet date. Management applies judgement in allocating corporate costs on a reasonable and consistent basis in order to determine operating profit at a CGU level. Forecasts reflect margin improvements secured in 2022.

Management have considered the impact of climate change risks (including physical and transition risks and the costs associated with achieving the Group's net zero commitment) and are satisfied that any related costs will not materially impact the Group's profit forecasts or impairment judgements at 31 December 2022.

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Notes to the consolidated financial statements *continued*

11. Intangible assets continued

The table below shows the key assumptions used by management in the value in use calculations.

	Discount rate	Perpetuity growth rate
Assessment & Qualifications	12.0%	2.0%
Virtual Learning	11.9%	2.0%
English Language Learning	11.8%	3.5%
Workforce Skills	11.6%	2.0%
Higher Education	12.0%	2.0%

Sensitivities

Impairment testing for the year ended 31 December 2022 has identified that the Virtual Learning CGU aggregation is sensitive to reasonably possible changes in key assumptions. The Virtual learning headroom at 31 December 2022 is £82m, this headroom would be eliminated if the discount rate increased to 12.8%, the long term growth rate reduced to 0.8% or the adjusted operating profit per annum reduced by £8m.

12. Investments in joint ventures and associates

The amounts recognised in the balance sheet are as follows:

All figures in £ millions	2022	2021
Associates	25	24
Total	25	24

The amounts recognised in the income statement are as follows:

All figures in £ millions	2022	2021
Associates	1	1
Total	1	1

The Group has no material associates or joint ventures. The largest associate is a 40% interest in the Academy of Pop (AOP), which was set up in 2021. It had a year end carrying amount of £9m (2021: £10m), of which £5m (2021: £7m) was still to be paid as at 31 December 2022 (see note 36). AOP is incorporated in Delaware and is a Limited Liability Company. It was set up with XIX Entertainment to create a new entertainment driven performing arts learning platform, which will offer coaching from renowned instructors, with a combination of physical locations and online learning.

There were no other material transactions with associates or joint ventures during 2022 or 2021.

13. Deferred income tax

All figures in £ millions	2022	2021
Deferred income tax assets	57	57
Deferred income tax liabilities	(37)	(40)
Net deferred income tax asset/(liability)	20	17

Substantially all of the deferred income tax assets are expected to be recovered after more than one year.

Deferred income tax assets and liabilities shall be offset when there is a legally enforceable right to offset current income tax assets with current income tax liabilities and where the deferred income taxes relate to the same fiscal authority.

At 31 December 2022, the Group has gross tax losses for which no deferred tax asset is recognised of £547m (2021: £721m). The expiry date and key geographic split of these losses is set out in the following table.

Year ended 31 December 2022	Gross				Tax effected			
	UK	US	Other	Total	UK	US	Other	Total
Tax losses expiring:								
Within 10 years	–	3	30	33	–	–	10	10
Within 10-20 years	–	104	–	104	–	5	–	5
Available indefinitely	166	30	214	410	41	2	68	111
Total	166	137	244	547	41	7	78	126

Year ended 31 December 2021	Gross				Tax effected			
	UK	US	Other	Total	UK	US	Other	Total
Tax losses expiring:								
Within 10 years	–	9	27	36	–	–	10	10
Within 10-20 years	–	297	–	297	–	14	–	14
Available indefinitely	166	86	136	388	41	5	49	95
Total	166	392	163	721	41	19	59	119

The reduction in unrecognised tax attributes in the US has been impacted by two factors. Firstly certain US tax attributes have now been recognised, however, due to uncertainty over recoverability have been provided against. Offsetting this is the de-recognition of certain state tax losses following changes in the forecast profitability of US legal entities. The increase in unrecognised tax losses in other territories is primarily due to foreign exchange and additional losses incurred across territories which have incurred losses either in the ordinary course of trade or as a result of wind down activities.

Other gross deductible temporary differences for which no deferred tax asset is recognised total £218m (2021: £22m). This includes £193m in respect of interest limitations, with the increase from 2021 due to changes in the forecast profitability of certain US legal entities. The amount of temporary differences associated with subsidiaries for which no deferred tax has been provided totals £275m (2021: £229m).

In the UK March Budget 2021, the Government announced that from 1 April 2023 the UK corporation tax rate will increase to 25%, and this was substantively enacted on 24 May 2021. UK deferred tax balances have been remeasured at the enacted rate.

Deferred income tax assets of £14m (2021: £19m) have been recognised in countries that reported a tax loss in either the current or preceding year. This primarily arises in Brazil in respect of tax deductible goodwill and tax losses. It is considered more likely than not that there will be sufficient future taxable profits to realise these assets.

The recognition of the deferred income tax assets is supported by management's forecasts of the future profitability of the relevant countries. In some cases deferred income tax assets are forecast to be recovered through taxable profits over a period that exceeds five years. Management consider these forecasts are sufficiently reliable to support the recovery of the assets. Where there are insufficient forecasts of future profits, deferred income tax assets have not been recognised.

The movement in deferred income tax assets and liabilities during the year is as follows:

All figures in £ millions	Trading losses	Accruals and other provisions	Retirement benefit obligations	Deferred revenue	Goodwill and intangibles	Interest limitations	Other	Total
Deferred income tax assets/(liabilities)								
At 1 January 2021	47	35	(49)	45	(209)	76	25	(30)
Exchange differences	–	(1)	–	–	(2)	–	2	(1)
Acquisition of subsidiaries	1	–	–	–	4	–	–	5
Income statement benefit/(charge)	34	30	2	7	29	(21)	35	116
Tax charge in OCI	–	–	(61)	–	–	–	(12)	(73)
At 31 December 2021	82	64	(108)	52	(178)	55	50	17
Exchange differences	–	7	2	6	(21)	6	4	4
Acquisitions and disposals of subsidiaries	7	–	–	–	(21)	–	(12)	(26)
Income statement benefit/(charge)	37	(4)	(9)	5	14	(6)	(7)	30
Tax charge in OCI / equity	4	–	(12)	–	–	–	3	(5)
At 31 December 2022	130	67	(127)	63	(206)	55	38	20

Other deferred income tax items include temporary differences in respect of right-of-use assets (deferred tax asset of £66m, with an offsetting deferred tax liability of £50m), accelerated capital allowances (£13m) and share-based payments (£9m).

As at 31 December 2022, no deferred income tax assets or liabilities were classified as held for sale (2021: £nil).

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14. Classification of financial instruments

The accounting classification of each class of the Group's financial assets, and their carrying values, is as follows:

All figures in £ millions	Notes	2022					2021				
		Fair value through other comprehensive income	Fair value through profit and loss	Fair value – hedging instrument	Amortised cost Financial assets	Total carrying value	Fair value			Amortised cost	
							Fair value through other comprehensive income ¹	Fair value through profit and loss ¹	Fair value – hedging instrument	Financial assets	Total carrying value
Investments in unlisted securities	15	24	109	–	–	133	28	85	–	–	113
Cash and cash equivalents	17	–	40	–	518	558	–	84	–	853	937
Derivative financial instruments	16	–	5	54	–	59	–	–	32	–	32
Trade receivables	22	–	–	–	825	825	–	–	–	854	854
Investment in finance lease receivable	22	–	–	–	121	121	–	–	–	115	115
Other receivable		–	–	–	3	3	–	87	–	–	87
Total financial assets		24	154	54	1,467	1,699	28	256	32	1,822	2,138

1. Comparative balances have been restated – see Note 1b.

The carrying value of the Group's financial assets is equal to, or approximately equal to, the market value. The other receivable relates to the receivable which arose on the disposal of the US K-12 business and was paid during the year.

The accounting classification of each class of the Group's financial liabilities, together with their carrying values and market values, is as follows:

All figures in £ millions	Notes	2022						2021				
		Fair value through profit and loss	Fair value – hedging instrument	Fair value		Amortised cost Other financial liabilities	Total carrying value	Total market value	Fair value			Total market value
									Fair value through profit and loss	Fair value – hedging instrument	Other financial liabilities	
Derivative financial instruments	16	(2)	(63)	–	(65)	(65)	(65)	(65)	(12)	(22)	–	(34)
Trade payables	24	–	–	–	(348)	(348)	(348)	(348)	–	–	(351)	(351)
Deferred and contingent consideration	24	(79)	–	–	(79)	(79)	(79)	(79)	(44)	–	–	(44)
Other borrowings due within one year	18	–	–	–	(86)	(86)	(86)	(86)	–	–	(155)	(155)
Borrowings due after more than one year	18	–	–	–	(1,144)	(1,144)	(1,096)	(1,096)	–	–	(1,245)	(1,276)
Total financial liabilities		(81)	(63)	(1,578)	(1,722)	(1,674)	(1,674)	(1,674)	(56)	(22)	(1,751)	(1,860)

The market value of leases has been stated at book value.

Fair value measurement

As shown above, the Group's derivative assets and liabilities, unlisted securities, marketable securities and deferred and contingent consideration are held at fair value. Financial instruments that are measured subsequently to initial recognition at fair value are grouped into levels 1 to 3, based on the degree to which the fair value is observable, as follows:

Level 1 fair value measurements are those derived from unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 fair value measurements are those derived from inputs, other than quoted prices included within level 1, that are observable for the asset or liability, either directly (as prices) or indirectly (derived from prices).

Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The Group's bonds valued at £610m (2021: £767m) and money market funds of £40m (2021: £84m) included within cash and cash equivalents are classified as level 1. The Group's derivative assets valued at £59m (2021: £32m) and derivative liabilities valued at £65m (2021: £34m) are classified as level 2. The Group's investments in unlisted securities are valued at £133m (2021: £113m) and the other receivable that was repaid in the year £3m (2021: £87m) are classified as level 3.

The following table analyses the movements in level 3 fair value remeasurements:

All figures in £ millions	Other receivable	Investments in unlisted securities	2022	2021 ¹
			Total	Total
At beginning of year	87	113	200	234
Exchange differences	1	9	10	2
Acquisition of investments and other receivable	7	12	19	4
Repayments	(92)	–	(92)	(16)
Disposal of investments	–	(48)	(48)	(54)
Fair value movements - OCI	–	18	18	4
Fair value movements - income statement	–	29	29	26
At end of year	3	133	136	200

1. Comparative balances have been restated – see Note 1b.

The fair value of the investments in unlisted securities is determined by reference to the financial performance of the underlying asset, recent funding rounds and amounts realised on the sale of similar assets.

The other receivable at the beginning of the year arose on the disposal of the US K-12 business, and was repaid in January 2022, following a £16m partial repayment in 2021.

15. Other financial assets

All figures in £ millions	2022	2021 ¹
At beginning of year	113	138
Exchange differences	9	1
Acquisition of investments	12	4
Disposal of investments	(48)	(54)
Fair value movements - OCI	18	4
Fair value movements - income statement	29	20
At end of year	133	113

1. Comparative balances have been restated – see Note 1b.

Other financial assets are unlisted securities of £133m (2021: £113m), of which £24m (2021: £28m) are classified at fair value through other comprehensive income (FVOCI), with the remaining £109m (2021: £85m) mainly relating to investments in funds, being required to be held at fair value through profit and loss (FVTPL). The assets, which are not held for trading, relate to the Group's interests in new and innovative educational ventures across the world. These are strategic investments and where permitted, the Group made the election to classify such investments as FVOCI on initial recognition of the assets. None of the investments are individually significant to the financial statements and therefore sensitivities have not been provided.

During the year, the Group disposed of investments that were classified as FVOCI for £31m (2021: £6m). These disposals predominantly relate to the Group's investments in Credly in 2022 and Faethm in 2021. In both cases the remainder of the share capital was purchased by the Group and so the investment is disposed as the companies are now fully consolidated. The cumulative gain on disposal was £23m (2021: £4m).

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16. Derivative financial instruments and hedge accounting

The Group's approach to the management of financial risks is set out in note 19. The Group's outstanding derivative financial instruments are as follows:

	2022			2021		
	Gross notional amounts	Assets	Liabilities	Gross notional amounts	Assets	Liabilities
All figures in £ millions						
Interest rate derivatives – in a fair value hedge relationship	177	–	(11)	168	5	–
Interest rate derivatives – not in a hedge relationship	260	19	–	217	–	(9)
Cross-currency rate derivatives – in a hedge relationship	83	34	(43)	331	24	(21)
FX derivatives – in a hedge relationship	355	1	(9)	237	3	(1)
FX derivatives – not in a hedge relationship	573	5	(2)	193	–	(3)
Total	1,448	59	(65)	1,146	32	(34)
Analysed as expiring:						
In less than one year	1,028	16	(11)	393	2	(4)
Later than one year and not later than five years	420	43	(54)	679	30	(26)
Later than five years	–	–	–	74	–	(4)
Total	1,448	59	(65)	1,146	32	(34)

The Group's treasury policies only allow derivatives to be traded where the objective is risk mitigation. These are then designated for hedge accounting using the following criteria:

- Where interest rate and cross-currency interest rate swaps are used to convert fixed rate debt to floating and we expect to receive inflows equal to the fixed rate debt interest, these are classified as fair value hedges
- Where derivatives are used to create a future foreign currency exposure to provide protection against currency movements affecting the foreign currency movements of an overseas investment, these are designated as a net investment hedge
- All other derivatives are not designated in a hedge relationship.

The Group's fixed rate GBP debt is held as fixed rate instruments at amortised cost.

The Group uses a combination of interest rate and cross currency swaps to convert its €300m EUR debt.

Receive Notional	Receive coupon	FX rate	Notional	Pay coupon
GBPEUR:				
€100m	1.375%	1.1295	£87m	3.51%
GBPUSD:				
€181m	1.375%	1.206	£160m	3.402%
GBPUSD: USD Libor				
€19m	1.375%	1.206	£23m	+1.36%

To create the synthetic debt positions outlined above the Group converts €100m to £87m at a rate of 3.51% this is not in a hedge relationship. The remaining €200m of its EUR fixed debt is swapped to EUR floating debt via interest rate swap contracts that are in a designated fair value hedge. The EUR floating debt is then converted to GBP floating debt via cross-currency swap contracts that are in a designated fair value hedge. The GBP floating debt is then converted to USD floating debt through cross-currency swap contracts that are in a designated net investment hedging relationship. £160m of the EUR debt is finally converted to USD fixed debt via interest rate swap contracts that are not in a hedge relationship.

Additionally, the Group uses FX derivatives including forwards, collars, cross-currency swaps and swaptions to create synthetic USD debt as a hedge of its USD assets and to achieve reasonable certainty of USD currency conversion rates, in line with the Group's FX hedging policy. As at 31 December 2022 the Group held FX outright with a notional of \$378m at an average rate of GBP:USD rate of 1.24.

The Group's portfolio of derivatives is diversified by maturity, counterparty and type. Natural offsets between transactions within the portfolio and the designation of certain derivatives as hedges significantly reduce the risk of income statement volatility. The sensitivity of the portfolio to changes in market rates is set out in note 19.

In 2021, the Group transitioned GBP exposures from GBP LIBOR to SONIA. During the year, for USD exposures the Group transitioned its RCF from USD LIBOR to SOFR, it plans to move other exposures including derivatives in the near future. The Group's risk management strategy has not changed as a result of IBOR Reform and it is considered to be immaterial to the financial statements.

Fair value hedges

The Group uses interest rate swaps and cross-currency swaps as fair value hedges of the Group's euro issued debt.

Interest rate exposure arises from movements in the fair value of the Group's euro debt attributable to movements in euro interest rates. The hedged risk is the change in the euro bonds fair value attributable to interest rate movements. The hedged items are the Group's euro bonds which are issued at a fixed rate. The hedging instruments are fixed to floating euro interest rate swaps where the Group receives fixed interest payments and pays three-month Euribor.

As the critical terms of the interest rate swaps match the bonds, there is an expectation that the value of the hedging instrument and the value of the hedged item will move equally in the opposite direction as a result of movements in the zero coupon Euribor curve. Potential sources of hedge ineffectiveness would be material changes in the credit risk of swap counterparties or a reduction or modification in the hedge item.

A foreign currency exposure arises from foreign exchange fluctuations on translation of the Group's euro debt into GBP. The hedged risk is the risk of changes in the GBPEUR spot rate that will result in changes in the value of the euro debt when translated into GBP. The hedged items are a portion of the Group's euro bonds. The hedging instruments are floating to floating cross currency swaps which mitigates an exposure to the effect of euro strengthening against GBP within the hedge item.

As the critical terms of the cross-currency swap match the bonds, there is an expectation that the value of the hedging instrument and the value of the hedged item move in the opposite direction as a result of movements in the EUR:GBP exchange rate. Potential sources of hedge ineffectiveness are a reduction or modification in the hedged item or a material change in the credit risk of swap counterparties.

The Group held the following instruments to hedge exposures to changes in interest rates and foreign currency risk associated with borrowings:

	2022		
	Carrying amount of hedging instruments	Change in fair value of hedging instrument used to determine hedge ineffectiveness	Nominal amounts of hedging instruments
All figures in £ millions			
Derivative financial instruments for interest rate risk	(11)	(16)	177
Derivative financial instruments for currency risk	33	9	266
			2021
	Carrying amount of hedging instruments	Change in fair value of hedging instrument used to determine hedge ineffectiveness	Nominal amounts of hedging instruments
All figures in £ millions			
Derivative financial instruments for interest rate risk	5	(5)	168
Derivative financial instruments for currency risk	24	(20)	168

The amounts at the reporting date relating to items designated as hedge items were as follows:

	2022				
	Carrying amount of hedged items	Accumulated amount of fair value hedge adjustments on the hedged item included in the carrying amount	Change in fair value of hedged item used to determine hedge ineffectiveness	Hedge ineffectiveness	Line item in profit or loss that includes hedge ineffectiveness
All figures in £ millions					
Interest rate risk					
Financial liabilities – borrowings	(167)	11	15	(1)	Finance costs
Currency risk					
Financial liabilities – borrowings	(167)	n/a	(14)	–	n/a
					2021
	Carrying amount of hedged items	Accumulated amount of fair value hedge adjustments on the hedged item included in the carrying amount	Change in fair value of hedged item used to determine hedge ineffectiveness	Hedge ineffectiveness	Line item in profit or loss that includes hedge ineffectiveness
All figures in £ millions					
Interest rate risk					
Financial liabilities – borrowings	(173)	(4)	5	–	n/a
Currency risk					
Financial liabilities – borrowings	(173)	n/a	20	–	n/a

Hedge of net investment in a foreign operation

A foreign currency exposure arises from the translation of the Group's net investments in its subsidiaries which have USD and EUR functional currencies. The hedged risk is the risk of changes in the GBP:USD and GBP:EUR spot rates that will result in changes in the value of the Group's net investment in its USD and EUR assets when translated into GBP. The hedged items are a portion of the Group's assets which are denominated in USD and EUR. The hedging instruments are debt and derivative financial instruments, including cross-currency swaps, FX forwards (including non-deliverable forwards) and FX collars, which mitigates an exposure to the effect of a weakening USD or EUR on the hedged item against GBP.

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16. Derivative financial instruments and hedge accounting continued

It is expected that the change in value of each of these items will offset each other as there is a clear and direct economic relationship between the hedging instrument and the hedged item in the hedge relationship.

Hedge ineffectiveness would arise if the value of the hedged items fell below the value of the hedging instruments; however, this is unlikely as the value of the Group's assets denominated in USD and EUR is significantly greater than the proposed net investment programme.

The amounts related to items designated as hedging instruments were as follows:

	2022				
	Carrying amount of hedging instruments	Change in value of hedging instrument used to determine hedge ineffectiveness	Nominal amounts of hedging instruments	Hedging gains/(losses) recognised in OCI	Hedge ineffectiveness recognised in profit or loss
All figures in £ millions					
Derivative financial instruments	(50)	(31)	172	(31)	–
Financial liabilities – borrowings	(89)	(5)	(88)	(5)	–

	2021				
	Carrying amount of hedging instruments	Change in value of hedging instrument used to determine hedge ineffectiveness	Nominal amounts of hedging instruments	Hedging gains/(losses) recognised in OCI	Hedge ineffectiveness recognised in profit or loss
All figures in £ millions					
Derivative financial instruments	(19)	(2)	(400)	(2)	–
Financial liabilities – borrowings	(240)	4	(240)	4	–

Included in the translation reserve is a cost of hedging reserve relating to the time value of FX collars which is not separately disclosed due to materiality. The value of that reserve will decrease over the life of the hedge transaction. The balance as at 1 January and 31 December 2022 was £1m. During the year £2m of hedging gains were recycled to the profit and loss on the discontinuance of the net investment hedge of our Italian business.

Offsetting arrangements with derivative counterparties

All of the Group's derivative financial instruments are subject to enforceable netting arrangements with individual counterparties, allowing net settlement in the event of default of either party. Derivative financial assets and liabilities subject to offsetting arrangements are as follows:

	2022			2021		
	Gross derivative assets	Gross derivative liabilities	Net derivative assets/liabilities	Gross derivative assets	Gross derivative liabilities	Net derivative assets/liabilities
All figures in £ millions						
Counterparties in an asset position	30	(17)	13	17	(12)	5
Counterparties in a liability position	29	(48)	(19)	15	(22)	(7)
Total as presented in the balance sheet	59	(65)	(6)	32	(34)	(2)

Offset arrangements in respect of cash balances are described in note 17.

Counterparty exposure from all derivatives is managed, together with that from deposits and bank account balances, within credit limits that reflect published credit ratings and by reference to other market measures (e.g. market prices for credit default swaps) to ensure that there is no significant exposure to any one counterparty's credit risk.

The Group has no material embedded derivatives that are required to be separately accounted for in accordance with IFRS 9 'Financial Instruments'.

17. Cash and cash equivalents (excluding overdrafts)

All figures in £ millions	2022	2021
Cash at bank and in hand	269	660
Short-term bank deposits	289	277
	558	937

Short-term bank deposits are invested with banks and earn interest at the prevailing short-term deposit rates.

At the end of 2022, the currency split of cash and cash equivalents was US dollar 31% (2021: 37%), sterling 6% (2021: 24%), and other 63% (2021: 39%).

Cash and cash equivalents have fair values that approximate to their carrying value due to their short-term nature.

There is no cash and cash equivalents balance classified as held for sale (2021: £nil). The Group has certain cash pooling arrangements in US dollars, sterling and Canadian dollars where both the company and the bank have a legal right of offset. Offsetting amounts are presented gross in the balance sheet. Offset arrangements in respect of derivatives are shown in note 16.

For the purpose of the cash flow statement, cash and cash equivalents are £543m (2021: £937m), which includes £15m (2021: £nil) of overdrafts.

18. Financial liabilities – borrowings

The Group's current and non-current borrowings are as follows:

All figures in £ millions	2022	2021
Non-current		
3.25% US dollar notes 2023 (nominal amount \$94m)	–	70
1.375% Euro notes 2025 (nominal amount €300m)	257	257
3.75% GBP notes 2030 (nominal amount £350m)	353	353
Lease liabilities (see note 35)	534	565
	1,144	1,245
Current (due within one year or on demand)		
3.75% US dollar notes 2022 (nominal amount \$117m)	–	87
Lease liabilities (see note 35)	71	68
Overdrafts	15	–
	86	155
Total borrowings	1,230	1,400

Included in the non-current borrowings above is £10m of accrued interest (2021: £10m). No accrued interest is included in the current borrowings above (2021: £0.5m). In addition to the above, there are no non-current borrowings (2021: £nil) or current borrowings (2021: £nil) classified as held for sale. The maturities of the Group's non-current borrowings are as follows:

All figures in £ millions	2022	2021
Between one and two years	72	140
Between two and five years	442	435
Over five years	630	670
	1,144	1,245

The carrying amounts and market values of borrowings are as follows:

	2022			2021		
	Effective interest rate	Carrying value	Market value	Effective interest rate	Carrying value	Market value
All figures in £ millions						
3.75% US dollar notes 2022	n/a	–	–	3.94%	87	87
3.25% US dollar notes 2023	n/a	–	–	3.36%	70	71
1.375% Euro notes 2025	1.44%	257	252	1.44%	257	260
3.75% GBP notes 2030	3.93%	353	310	3.93%	353	380
Overdrafts	n/a	15	15	–	–	–
		625	577		767	798

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18. Financial liabilities – borrowings continued

The market values stated above are based on clean market prices at the year end or, where these are not available, on the quoted market prices of comparable debt issued by other companies. The effective interest rates above relate to the underlying debt instruments.

The carrying amounts of the Group's borrowings before the effect of derivatives (see notes 16 and 19 for further information on the impact of derivatives) are denominated in the following currencies:

All figures in £ millions	2022	2021
US dollar	276	434
Sterling	672	674
Euro	262	268
Other	20	24
	1,230	1,400

The Group had \$1.19bn (£0.9bn) of undrawn capacity on its committed borrowing facilities as at 31 December 2022 (2021: \$1.19bn (£0.9bn) undrawn). The committed borrowing facilities have subsequently been reduced to \$1bn. In addition, there are a number of short-term facilities that are utilised in the normal course of business. All of the Group's borrowings are unsecured. In respect of lease obligations, the rights to the leased asset revert to the lessor in the event of default.

19. Financial risk management

The Group's approach to the management of financial risks together with sensitivity analyses of its financial instruments is set out below.

Treasury policy

Pearson's treasury policies set out the Group's principles for addressing key financial risks including capital risk, liquidity risk, foreign exchange risk and interest rate risk, and sets out measurable targets for each. The Audit Committee receives quarterly reports incorporating compliance with measurable targets and reviews and approves any changes to treasury policies annually.

The treasury function is permitted to use derivatives where their use reduces a risk or allows a transaction to be undertaken more cost effectively. Derivatives permitted include swaps, forwards and collars to manage foreign exchange and interest rate risk, with

foreign exchange swap and forward contracts the most commonly executed. Speculative transactions are not permitted.

Capital risk

The Group's objectives when managing capital are:

- To maintain a strong balance sheet and a solid investment grade rating;
- To continue to invest in the business organically and through acquisitions; and
- To have a sustainable and progressive dividend policy.

At 31 December 2022 the Group and its bonds were rated BBB- (stable outlook) with Fitch Ratings Limited and Baa3 (stable outlook) with Moody's Investor Services.

Net debt

The Group's net debt position is set out below:

All figures in £ millions	2022	2021
Cash and cash equivalents	558	937
Overdrafts	(15)	–
Derivative financial instruments	(6)	(2)
Bonds	(610)	(767)
Investment in finance lease receivable	121	115
Lease liabilities	(605)	(633)
Net debt	(557)	(350)

There are no balances held for sale as at 31 December 2022 or 31 December 2021.

Interest and foreign exchange rate management

The Group's principal currency exposure is to the US dollar which represents almost 70% of the Group's sales.

The Group's long-term debt is primarily held in US dollars to provide a natural hedge of this exposure, which is achieved through issued US dollar debt or converting euro debt to US dollars using cross-currency swaps, forwards and collars. As at 31 December 2022 and 2021, the Group's debt of £1,230m (2021: £1,400m) is all held at fixed rates.

See note 16 for details of the Group's hedging programme which addresses interest rate risk and foreign currency risk.

Overseas profits are converted to sterling to satisfy sterling cash outflows such as dividends at the prevailing spot rate at the time of the transaction. To the extent the Group has sufficient sterling, US dollars may be held as dollar cash to provide a natural offset to the Group's debt or to satisfy future US dollar cash outflows.

The Group does not have significant cross-border foreign exchange transactional exposures.

As at 31 December 2022, the sensitivity of the carrying value of the Group's financial instruments to fluctuations in interest rates and exchange rates is as follows:

	2022				
	Carrying value	Impact of 1% increase in interest rates	Impact of 1% decrease in interest rates	Impact of 10% strengthening in sterling	Impact of 10% weakening in sterling
All figures in £ millions					
Investments in unlisted securities	133	–	–	(10)	12
Other receivable	3	–	–	–	–
Cash and cash equivalents	558	–	–	(25)	31
Derivative financial instruments	(6)	7	(6)	(10)	12
Bonds	(610)	4	(4)	24	(30)
Other borrowings	(620)	–	–	26	(32)
Investment in finance lease receivable	121	–	–	(11)	13
Deferred and contingent consideration	(79)	–	–	4	(5)
Other net financial assets	477	–	–	(38)	47
Total	(23)	11	(10)	(40)	48

	2021				
	Carrying value	Impact of 1% increase in interest rates	Impact of 1% decrease in interest rates	Impact of 10% strengthening in sterling	Impact of 10% weakening in sterling
All figures in £ millions					
Investments in unlisted securities	113	–	–	(9)	11
Other receivable	87	–	–	(8)	10
Cash and cash equivalents	937	–	–	(43)	53
Derivative financial instruments	(2)	6	(6)	(1)	1
Bonds	(767)	5	(5)	37	(45)
Other borrowings	(633)	–	–	57	(70)
Investment in finance lease receivable	115	–	–	(11)	13
Other net financial assets	503	–	–	(42)	51
Total	353	11	(11)	(20)	24

The table above shows the sensitivities of the fair values of each class of financial instrument to an isolated change in either interest rates or foreign exchange rates. Other net financial assets comprise trade receivables less trade payables. A significant proportion of the movements shown above would impact equity rather than the income statement due to the location and functional currency of the entities in which they arise and the availability of net investment hedging.

The Group's income statement is reported at average rates for the year while the balance sheet is translated at the year-end closing rate. Differences between these rates can distort ratio calculations such as debt to EBITDA and interest cover. Adjusted operating profit translated at year-end closing rates would be £9m higher (2021: £6m higher) than the reported figure of £456m (2021: £385m) at £465m (2021: £391m). Adjusted EBITDA translated at year-end closing rates would be £12m higher (2021: £8m higher) than the reported figure of £667m (2021: £598m) at £679m (2021: £606m).

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Notes to the consolidated financial statements *continued*

19. Financial risk management continued

Liquidity and refinancing risk management

The Group regularly reviews the level of cash and debt facilities required to fund its activities. This involves preparing a prudent cash flow forecast for the next three to five years, determining the level of debt facilities required to fund the business, planning for shareholder returns and repayments of maturing debt, and identifying an appropriate amount of headroom to provide a reserve against unexpected outflows.

At 31 December 2022, the Group had cash of £0.5bn (2021: £0.9bn) and no outstanding drawings (2021: £nil) on the US dollar denominated revolving credit facility due 2026 of \$1.19bn (2021: \$1.19bn).

The \$1.19bn facility contains interest cover and leverage covenants which the Group has complied with for the year ended 31 December 2022. The maturity of the carrying values of the Group's borrowings and trade payables are set out in notes 18 and 24 respectively.

At the end of 2022, the currency split of the Group's trade payables was US dollar £234m (2021: £199m), sterling £71m (2021: £76m) and other currencies £43m (2021: £76m). Trade payables are all due within one year (2021: all due within one year).

The table below analyses the Group's bonds and derivative assets and liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. Short dated derivative instruments have not been included in this table. The amounts disclosed in the table are the contractual undiscounted cash flows (including interest) and as such may differ from the amounts disclosed on the balance sheet.

Any cash flows based on a floating rate are calculated using interest rates as set at the date of the last rate reset. Where this is not possible, floating rates are based on interest rates prevailing at 31 December in the relevant year.

Financial counterparty and credit risk management

Financial counterparty and credit risk arises from cash and cash equivalents, favourable derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers, including outstanding receivables. Counterparty credit limits, which take published credit rating and other factors into account, are set to cover the Group's total aggregate exposure to a single financial institution. The limits applicable to published credit rating bands are approved by the Chief Financial Officer within guidelines approved by the Board. Exposures and limits applicable to each financial institution are reviewed on a regular basis.

All figures in £ millions	Analysed by maturity				Analysed by currency			
	Greater than one month and less than one year	Later than one year but less than five years	Five years or more	Total	USD	GBP	Other	Total
At 31 December 2022								
Bonds	-	342	389	731	-	455	276	731
Rate derivatives – inflows	(11)	(471)	-	(482)	(24)	(170)	(288)	(482)
Rate derivatives – outflows	1	490	-	491	224	255	12	491
FX forwards – inflows	(304)	-	-	(304)	-	(304)	-	(304)
FX forwards – outflows	313	-	-	313	-	313	-	313
Total	(1)	361	389	749	200	549	-	749
At 31 December 2021								
Bonds	107	386	403	896	162	468	266	896
Rate derivatives – inflows	(7)	(331)	-	(338)	(9)	(150)	(179)	(338)
Rate derivatives – outflows	12	339	4	355	203	150	2	355
FX forwards – inflows	(148)	-	-	(148)	-	(148)	-	(148)
FX forwards – outflows	148	-	-	148	90	-	58	148
Total	112	394	407	913	446	320	147	913

Cash deposits and derivative transactions are made with approved counterparties up to pre-agreed limits. To manage counterparty risk associated with cash and cash equivalents, the Group uses a mixture of money market funds as well as bank deposits. As at 31 December 2022, 77% (2021: 81%) of cash and cash equivalents was held with investment grade bank counterparties, 8% (2021: 9%) with AAA money market funds and 15% (2021: 10%) with non-investment grade bank counterparties.

For trade receivables and contract assets, the Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, risk associated with the industry and country in which customers operate may also influence the credit risk. The credit quality of customers is assessed by taking into account financial position, past experience and other relevant factors. Individual credit limits are set for each customer based on internal ratings. The compliance with credit limits is regularly monitored by the Group. A default on a trade receivable is when the counterparty fails to make contractual payments within the stated payment terms. Trade receivables and contract assets are written off when there is no reasonable expectation of recovery.

The carrying amounts of financial assets, trade receivables and contract assets represent the maximum credit exposure.

Trade receivables and contract assets are subject to impairment using the expected credit loss model. The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected credit loss allowance for all trade receivables and contract assets. To measure the expected credit losses, trade receivables and contract assets have been grouped based on shared credit risk characteristics and the days past due. See note 22 for further details about trade receivables and contract assets including movements in provisions for bad and doubtful debts.

20. Intangible assets – product development

All figures in £ millions	2022	2021
Cost		
At 1 January	2,698	2,514
Exchange differences	235	-
Additions	357	287
Disposals and retirements	(191)	(92)
Disposal of subsidiary (note 31)	(186)	(9)
Transfers	5	(2)
At 31 December	2,918	2,698
Amortisation		
At 1 January	(1,804)	(1,609)
Exchange differences	(174)	(3)
Charge for the year	(288)	(260)
Impairment	(15)	(19)
Disposals and retirements	191	92
Disposal of subsidiary (note 31)	147	3
Transfers	-	(8)
At 31 December	(1,943)	(1,804)
Carrying amounts at 31 December	975	894

Product development assets are amortised over their estimated useful economic lives. Product development assets relating to content are amortised over seven years or less, being an estimate of the expected operating lifecycle of the title, with a higher proportion of the amortisation taken in the earlier years. Product development assets relating to product platforms are amortised over 10 years or less. Amortisation is included in the income statement in cost of goods sold.

Product development assets are assessed for impairment triggers on an annual basis or when triggering events occur. In 2022, of the £15m (2021: £19m) impairment charges, £13m (2021: £14m; 2020: £nil) have been recognised as a result of asset write-offs related to the major restructuring programme. The full annual impairment test showed that there is adequate headroom across all product development assets and accordingly no further impairment charges were recognised in 2022 (2021: £nil; 2020: £nil).

21. Inventories

All figures in £ millions	2022	2021
Raw materials	5	7
Work in progress	2	2
Finished goods	93	84
Returns asset	5	5
	105	98

The cost of inventories recognised as an expense and included in the income statement in cost of goods sold amounted to £166m (2021: £171m; 2020: £219m) including £16m (2021: £22m; 2020: £41m) of inventory provisions. None of the inventory is pledged as security. Included within the inventory balance is the estimation of the right to receive goods from contracts with customers via returns. The value of the returns asset is measured at the carrying amount of the assets at the time of sale aligned to the Group's normal inventory valuation methodology less any expected costs to recover the asset and any expected reduction in value. Impairment charges against the inventory returns asset are £nil in 2022 (2021: £nil; 2020: £nil). The returns asset all relates to finished goods. The obsolescence provision takes account of the Group's digital first strategy and the increasing shift towards print on demand. The year-on-year reduction in inventories is due to increased provisions for obsolescence and a reduction in the production of inventory due to the Group's digital first strategy and the increasing shift towards print on demand.

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Notes to the consolidated financial statements *continued*

22. Trade and other receivables

All figures in £ millions	2022	2021
Current		
Trade receivables	824	853
Royalty advances	1	2
Prepayments	200	198
Investment in finance lease receivable	17	15
Accrued income	15	14
Other receivables	82	175
	1,139	1,257
Non-current		
Trade receivables	1	1
Royalty advances	5	5
Prepayments	12	10
Investment in finance lease receivable	104	100
Accrued income	2	1
Interest receivable	3	8
Other receivables	12	4
	139	129

Accrued income represents contract assets which are unbilled amounts generally resulting from assessments and services revenue streams where revenue to be recognised over time has been recognised in excess of customer billings to date. Impairment charges on accrued income assets are £nil (2021: £nil). The carrying value of the Group's trade and other receivables approximates its fair value. Trade receivables are stated net of provisions for bad and doubtful debts. In addition to the above, there are trade receivables of £nil (2021: nil) classified as held for sale (see note 32).

The movements in the provision for bad and doubtful debts are as follows:

All figures in £ millions	2022	2021
At beginning of year	(63)	(74)
Exchange differences	(3)	–
Income statement movements	(18)	(15)
Utilised	12	26
Disposal of subsidiary	3	–
At end of year	(69)	(63)

Concentrations of credit risk with respect to trade receivables are limited due to the Group's large number of customers, who are internationally dispersed.

The ageing of the Group's gross trade receivables is as follows:

All figures in £ millions	2022	2021
Within due date and one month past due date	663	766
One to three months past due date	118	58
Three to six months past due date	25	20
Six to nine months past due date	14	13
Nine to 12 months past due date	14	5
More than 12 months past due date	60	55
Gross trade receivables	894	917

The Group reviews its bad debt provision at least twice a year following a detailed review of receivable balances, historical payment profiles, and assessment of relevant forward-looking risk factors including macroeconomic trends. Management believes all the remaining receivable balances are fully recoverable.

The decrease in trade receivables held by the Group is driven by current year disposals. Other current receivables have decreased due to the receipt of deferred proceeds in relation to the US K-12 disposal.

23. Provisions for other liabilities and charges

All figures in £ millions	Property	Disposals and closures	Legal and other	Total
At 1 January 2022	15	2	30	47
Exchange differences	–	–	4	4
Provisions made during the year	9	–	78	87
Provisions reversed during the year	(1)	–	(6)	(7)
Provisions used during the year	(1)	–	(30)	(31)
Disposal of subsidiary	–	–	(1)	(1)
At 31 December 2022	22	2	75	99

Analysis of provisions:

	2022			
All figures in £ millions	Property	Disposals and closures	Legal and other	Total
Current	9	2	74	85
Non-current	13	–	1	14
	22	2	75	99
	2021			
Current	11	2	27	40
Non-current	4	–	3	7
	15	2	30	47

Property provisions in 2022 and 2021 relate to the simplification of the Group's property portfolio (see note 4). Disposals and closures relate to the disposal of the Pearson Institute of Higher Education.

Legal and other includes legal claims, contract disputes and potential contract losses with the provisions utilised as the cases are settled. Also included in legal and other are other restructuring provisions that are generally utilised within one year.

The year on year increase in provisions is mainly due to the 2022 restructuring programme (see note 4).

24. Trade and other liabilities

All figures in £ millions	2022	2021
Current		
Trade payables	348	351
Sales return liability	53	83
Deferred income	340	330
Interest payable	10	42
Accruals and other liabilities	503	450
	1,254	1,256
Non-current		
Deferred income	60	56
Accruals and other liabilities	60	39
	120	95

The carrying value of the Group's trade and other liabilities approximates its fair value. The deferred income balance comprises contract liabilities in respect of advance payments in assessment, testing and training businesses; subscription income in school and college businesses; and obligations to deliver digital content in future periods. In addition to the above, there are accruals of £nil (2021: £nil) and deferred income of £nil (2021: £nil) classified as held for sale (see note 32). The increase in trade and other liabilities held by the Group is driven by an increase in accruals related to severance arising from the 2022 restructuring programme and the recognition of deferred consideration in relation to acquisitions made in 2022.

Financial statements

Notes to the consolidated financial statements *continued*

25. Retirement benefit and other post-retirement obligations

Background

The Group operates a number of defined benefit and defined contribution retirement plans throughout the world.

The largest plan is the Pearson Pension Plan (UK Group plan) in the UK, which is sectionalised to provide both defined benefit and defined contribution pension benefits. The defined benefit section was largely closed to new members from 1 November 2006. The defined contribution section, opened in 2003, is open to new and existing employees. Finally, there is a separate section within the UK Group plan set up for auto-enrolment.

The defined benefit section of the UK Group plan is a final salary pension plan which provides benefits to members in the form of a guaranteed level of pension payable for life. The level of benefits depends on the length of service and final pensionable pay.

The defined contribution section of the UK Group plan operates a Reference Scheme Test (RST) pension underpin for its members. Where a member's fund value is insufficient to purchase the RST pension upon retirement, the UK Group plan is liable for the shortfall to cover the member's RST pension. In addition, in recent years, the scheme rules were amended to enable members who have sufficient funds to purchase an RST pension the ability to convert their fund value into a pension in the UK Group plan as an alternative to purchasing an annuity with an insurer. The Group recognises any assets and liabilities relating to these features of the defined contribution section as part of the overall UK Group plan obligation. From 1 January 2021, the Group also recognised the assets and liabilities for all members of the defined contribution section of the UK Group plan, accounting for the whole defined contribution section as a defined benefit scheme under IAS 19 'Employee Benefits' as there is a risk the underpin will require the Group to pay further contributions to the scheme.

The UK Group plan is funded with benefit payments from trustee-administered funds. The UK Group plan is administered in accordance with the Trust Deed and Rules in the interests of its beneficiaries by Pearson Pension Trustee Limited.

At 31 December 2022, the UK Group plan had approximately 26,500 members, analysed in the following table:

All figures in %	Active	Deferred	Pensioners	Total
Defined benefit	–	16	33	49
Defined contribution	12	39	–	51
Total	12	55	33	100

The other major defined benefit plans are based in the US. These are also final salary pension plans which provide benefits to members in the form of a guaranteed pension payable for life, with the level of benefits dependent on length of service and final pensionable pay. The majority of the US plans are fully funded.

The Group also has several post-retirement medical benefit plans (PRMBs), principally in the US. PRMBs are unfunded but are accounted for and valued similarly to defined benefit pension plans.

The defined benefit schemes expose the Group to actuarial risks, such as life expectancy, inflation risks and investment risk including asset volatility and changes in bond yields. The Group is not exposed to any unusual, entity-specific or plan-specific risks.

Key judgements

Whether the Group will be eligible to receive the surplus associated with the UK Group Pension Plan in recognising a pension asset.

Key areas of estimation

The determination of the pension cost and defined benefit obligation of the Group's defined benefit pension schemes depends on the selection of certain assumptions, which include the discount rate, inflation rate, salary growth and longevity.

Assumptions

The principal assumptions used for the UK Group plan and the US PRMB are shown below. Weighted average assumptions have been shown for the other plans, which primarily relate to US pension plans.

	UK Group plan	Other plans	2022 PRMB	2021			2020		
				UK Group plan	Other plans	PRMB	UK Group plan	Other plans	PRMB
All figures in %									
Inflation	3.4	2.0	–	3.3	1.4	–	2.9	0.6	–
Rate used to discount plan liabilities	4.9	5.3	5.3	1.9	2.8	2.6	1.4	2.2	2.1
Expected rate of increase in salaries	3.9	2.9	–	3.8	2.7	–	3.4	2.2	–
Expected rate of increase for pensions in payment and deferred pensions	1.95 to 5.20	–	–	2.35 to 5.10	–	–	2.05 to 5.05	–	–
Initial rate of increase in healthcare rate	–	–	6.5	–	–	6.3	–	–	6.5
Ultimate rate of increase in healthcare rate	–	–	5.0	–	–	5.0	–	–	5.0

The UK discount rate is based on corporate bond yields adjusted to reflect the duration of liabilities.

The inflation rate for the UK Group plan of 3.4% (2021: 3.3%) reflects the RPI rate. In line with changes to legislation in 2010, certain benefits have been calculated with reference to CPI as the inflationary measure and in these instances a rate of 2.7% (2021: 2.6%) has been used. The CPI rate is determined as a weighted average deduction from the RPI rate, and allows for the expected change to the formula for calculating RPI to be in line with CPIH from 2030 onwards.

For the UK Group plan, the mortality base table assumptions are derived from the SAPS S3 for males and females, adjusted to reflect the observed experience of the plan, with CMI model improvement factors. A 1.5% long-term rate improvement on the CMI 2021 model is applied for both males and females, with a weighting to 2021 mortality experience in the CMI model of 10% to make an approximate allowance for the impact of the COVID-19 pandemic. The analysis of experience, and standard tables, do not reflect the impact of the ongoing COVID-19 pandemic, the ultimate impact of which remains uncertain.

For the US plans, a mortality table (Pri – 2012) and 2021 improvement scale (MP – 2021) with generational projection for male and female annuitants has been adopted.

Using the above tables, the remaining average life expectancy in years of a pensioner retiring at age 65 on the balance sheet date for the UK Group plan and US plans is as follows:

	2022	UK		2022	US	
		2021	2020		2021	2020
All figures in years						
Male	22.5	22.6	24.0	20.6	20.5	20.4
Female	24.7	24.8	24.3	22.6	22.5	22.4

The remaining average life expectancy in years of a pensioner retiring at age 65, 20 years after the balance sheet date, for the UK and US Group plans is as follows:

	2022	UK		2022	US	
		2021	2020		2021	2020
All figures in years						
Male	24.1	24.2	25.6	22.1	22.0	21.9
Female	26.4	26.5	26.1	24.0	23.9	23.8

Although the Group anticipates that plan surpluses will be utilised during the life of the plan to address member benefits, the Group recognises it's pension surplus in full in respect of the UK Group plan on the basis that it is management's judgement that there are no substantive restrictions on the return of residual plan assets in the event of a winding up of the plan after all member obligations have been met.

Financial statements

Notes to the consolidated financial statements *continued*

25. Retirement benefit and other post-retirement obligations continued

Financial statement information

The amounts recognised in the income statement are as follows:

						2022
	UK Group plan	Defined benefit other	Sub-total	Defined contribution	PRMB	Total
All figures in £ millions						
Current service cost	17	2	19	46	–	65
Past service cost	3	–	3	–	–	3
Administration expenses	7	–	7	–	–	7
Total operating expense	27	2	29	46	–	75
Interest on plan assets	(77)	(3)	(80)	–	–	(80)
Interest on plan liabilities	67	3	70	–	1	71
Net finance (income)/expense	(10)	–	(10)	–	1	(9)
Net income statement charge	17	2	19	46	1	66

						2021
	UK Group plan	Defined benefit other	Sub-total	Defined contribution	PRMB	Total
All figures in £ millions						
Current service cost	17	2	19	37	–	56
Past service cost	–	–	–	–	–	–
Administration expenses	6	–	6	–	–	6
Total operating expense	23	2	25	37	–	62
Interest on plan assets	(55)	(2)	(57)	–	–	(57)
Interest on plan liabilities	49	3	52	–	1	53
Net finance (income)/expense	(6)	1	(5)	–	1	(4)
Net income statement charge	17	3	20	37	1	58

						2020
	UK Group plan	Defined benefit other	Sub-total	Defined contribution	PRMB	Total
All figures in £ millions						
Current service cost	6	2	8	47	–	55
Past service cost	1	–	1	–	–	1
Curtailments	–	(1)	(1)	–	–	(1)
Administration expenses	5	–	5	–	–	5
Total operating expense	12	1	13	47	–	60
Interest on plan assets	(66)	(3)	(69)	–	–	(69)
Interest on plan liabilities	57	5	62	–	1	63
Net finance (income)/expense	(9)	2	(7)	–	1	(6)
Net income statement charge	3	3	6	47	1	54

The amounts recognised in the balance sheet are as follows:

					2022				2021
	UK Group plan	Other funded plans	Other unfunded plans	Total		UK Group plan	Other funded plans	Other unfunded plans	Total
All figures in £ millions									
Fair value of plan assets	3,088	104	–	3,192		4,125	120	–	4,245
Present value of defined benefit obligation	(2,514)	(106)	(17)	(2,637)		(3,588)	(123)	(20)	(3,731)
Net pension asset/(liability)	574	(2)	(17)	555		537	(3)	(20)	514
Other post-retirement medical benefit obligation				(25)					(34)
Other pension accruals				(10)					(9)
Net retirement benefit asset				520					471
Analysed as:									
Retirement benefit assets				581					537
Retirement benefit obligations				(61)					(66)

The following gains/(losses) have been recognised in other comprehensive income:

	2022	2021	2020
All figures in £ millions			
Amounts recognised for defined benefit plans	44	145	(24)
Amounts recognised for post-retirement medical benefit plans	10	4	1
Total recognised in year	54	149	(23)

The fair value of plan assets comprises the following:

				2022				2021
	UK Group plan	Other funded plans	Total		UK Group plan	Other funded plans	Total	
All figures in %								
Insurance	33	–	33		35	–	35	
Equities	15	1	16		11	1	12	
Fixed interest securities	7	2	9		7	2	9	
Property	6	–	6		5	–	5	
Pooled asset investment funds (including LDI)	22	–	22		30	–	30	
Other	14	–	14		9	–	9	

The plan assets do not include any of the Group's own financial instruments, or any property occupied by the Group. The table below further disaggregates the plan assets into those assets which have a quoted market price in an active market and those that do not:

			2022			2021
	Quoted market price	No quoted market price		Quoted market price	No quoted market price	
All figures in %						
Insurance	33	–		35	–	
Equities	16	–		11	1	
Fixed-interest securities	9	–		9	–	
Property	–	6		–	5	
Pooled asset investment funds (including LDI)	22	–		30	–	
Other	1	13		–	9	
Total	81	19		85	15	

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Notes to the consolidated financial statements *continued*

25. Retirement benefit and other post-retirement obligations continued

Financial statement information continued

The liquidity profile of the UK Group plan assets is as follows:

All figures in %	2022	2021
Liquid – call <1 month	47	51
Less liquid – call 1–3 months	2	–
Illiquid – call >3 months	51	49

Changes in the values of plan assets and liabilities of the retirement benefit plans are as follows:

	2022			2021		
All figures in £ millions	UK Group plan	Other plans	Total	UK Group plan	Other plans	Total
Fair value of plan assets						
Opening fair value of plan assets	4,125	120	4,245	3,588	119	3,707
Recognition of Money Purchase assets	-	-	-	513	-	513
Exchange differences	-	12	12	-	2	2
Interest on plan assets	77	3	80	55	2	57
Return on plan assets excluding interest	(1,000)	(18)	(1,018)	71	6	77
Contributions by employer	15	2	17	14	1	15
Benefits paid	(136)	(15)	(151)	(123)	(10)	(133)
Contributions by employees	7	-	7	7	-	7
Closing fair value of plan assets	3,088	104	3,192	4,125	120	4,245
Present value of defined benefit obligation						
Opening defined benefit obligation	(3,588)	(143)	(3,731)	(3,178)	(156)	(3,334)
Recognition of Money Purchase liabilities	-	-	-	(513)	-	(513)
Exchange differences	-	(14)	(14)	-	(1)	(1)
Disposals	-	1	1	-	-	-
Current service cost	(17)	(2)	(19)	(17)	(2)	(19)
Past service cost	(3)	-	(3)	-	-	-
Administration expenses	(7)	-	(7)	(6)	-	(6)
Interest on plan liabilities	(67)	(3)	(70)	(49)	(3)	(52)
Actuarial (losses)/gains – experience	(25)	(2)	(27)	(100)	3	(97)
Actuarial gains/(losses) – demographic	14	-	14	(1)	-	(1)
Actuarial gains – financial	1,050	25	1,075	160	6	166
Contributions by employees	(7)	-	(7)	(7)	-	(7)
Benefits paid	136	15	151	123	10	133
Closing defined benefit obligation	(2,514)	(123)	(2,637)	(3,588)	(143)	(3,731)

From 1 January 2021, the Group has recognised the assets and liabilities for all members of the defined contribution section of the UK Group plan, accounting for the whole defined contribution section as a defined benefit scheme under IAS 19 ‘Employee Benefits’. The net impact on the balance sheet was £nil, however, the gross amounts of £513m can be seen in the table above. Subsequent movements to those assets and liabilities are included in the relevant lines in the table above.

The weighted average duration of the defined benefit obligation is 13 years for the UK and six years for the US.

Changes in the value of the US PRMB are as follows:

All figures in £ millions	2022	2021
Opening defined benefit obligation	(34)	(39)
Exchange differences	(3)	(1)
Interest on plan liabilities	(1)	(1)
Actuarial gains – experience	5	2
Actuarial gains – financial	5	2
Benefits paid	3	3
Closing defined benefit obligation	(25)	(34)

Funding

The UK Group plan is self-administered with the plan's assets being held independently of the Group in trust. The trustee of the UK Group plan is required to act in the best interest of the plan's beneficiaries. The most recent triennial actuarial valuation for funding purposes was completed as at 1 January 2021 and this valuation revealed a technical provision funding surplus of £160m. The UK Group plan expects to be able to provide benefits (in accordance with the plan rules) with a very low level of reliance on future funding from the Group.

Assets of the UK Group plan are divided into two main elements: liability matching assets and return seeking assets. The UK Group plan's investment strategy allocates approximately 95% to matching assets and 5% to return-seeking assets.

Liability matching assets are assets that produce cash flows that can be expected to match the cash flows for a proportion of the membership, and include a liability-driven investment mandate (LDI) for which a Qualifying Investor Alternative Investment Fund (QIAIF) was established, managed by a subsidiary of Legal & General Investment Management. The QIAIF invests in UK bonds, interest rate/inflation swaps and other derivative instruments in order to reduce interest rate and inflation risks using accurate cash flow matching and risk control. Other liability matching assets include pensioner buy-in insurance policies, bonds and inflation-linked property and infrastructure.

Following the purchase of buy-in policies with Legal & General and Aviva in 2017 and 2019, 95% of the UK Group plan's pensioner liabilities were matched with buy-in policies. These transfer significant longevity risk to Aviva and Legal & General, reducing the pension risks being underwritten by the Group and providing additional security for members.

Return-seeking assets are assets invested with a longer-term horizon to generate the returns needed to provide the remaining expected cash flows for the beneficiaries, and include diversified growth funds, property and alternative asset classes.

Recent economic and geopolitical uncertainty has increased volatility in the valuation of certain assets, in particular the LDI and insurance contracts. However, these movements are offset by equivalent movements in the defined benefit obligation. The UK Group plan divides its assets between a number of investment managers and across different types of assets, as such there is no significant concentration of risk.

Regular employer contributions to the UK Group plan in respect of the defined benefit sections are estimated to be £nil for 2023.

Sensitivities

The effect of a one percentage point increase and decrease in the discount rate on the defined benefit obligation and the total pension expense is as follows:

All figures in £ millions	2022	
	1% increase	1% decrease
Effect:		
(Decrease)/increase in defined benefit obligation – UK Group plan	(209)	261
(Decrease)/increase in defined benefit obligation – US plan	(7)	7

The effect of members living one year more or one year less on the defined benefit obligation is as follows:

All figures in £ millions	2022	
	One year increase	One year decrease
Effect:		
Increase/(decrease) in defined benefit obligation – UK Group plan	59	(59)
Increase/(decrease) in defined benefit obligation – US plan	3	(2)

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25. Retirement benefit and other post-retirement obligations continued

The effect of a half percentage point increase and decrease in the inflation rate is as follows:

	2022	
All figures in £ millions	0.5% increase	0.5% decrease
Effect:		
Increase/(decrease) in defined benefit obligation – UK Group plan	59	(57)
Increase/(decrease) in defined benefit obligation – US plan	–	–

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant, although in practice this is unlikely to occur and changes in some assumptions may be correlated. When calculating these sensitivities, the same method has been applied to calculate the defined benefit obligation as has been applied when calculating the liability recognised in the balance sheet. This methodology is the same as prior periods.

26. Share-based payments

The Group recognised the following charges in the income statement in respect of its equity-settled share-based payment plans:

All figures in £ millions	2022	2021	2020
Pearson plans	38	28	29

The Group operates the following equity-settled employee option and share plans:

Worldwide Save for Shares Plan – The Group has a Worldwide Save for Shares Plan. Under these plans, employees can save a portion of their monthly salary over a period of three years. At the end of this period, the employee has the option to purchase ordinary shares with the accumulated funds at a purchase price equal to 80% of the market price prevailing at the time of the commencement of the employee's participation in the plan. Options that are not exercised within six months of the end of the savings period lapse unconditionally.

Employee Stock Purchase Plan – In 2000, the Group established an Employee Stock Purchase Plan which allows all employees in the US to save a portion of their monthly salary over six-month periods. At the end of the period, the employee has the option to purchase American Depositary Receipts (ADRs) with their accumulated funds at a purchase price equal to 85% of the lower of the market prices prevailing at the beginning or end of the period.

Long-Term Incentive Plan – The plan was first introduced in 2001 and from time to time the plan rules are renewed. The plan consists of restricted shares. The vesting of restricted shares is normally dependent on continuing service over a three to five-year period, and in the case of Executive Directors and senior management upon the satisfaction of corporate performance targets over a three-year period. These targets may be based on market and/or non-market performance criteria. Restricted shares awarded to Executive Directors in May 2022, May 2021 and May 2020 vest dependent on relative total shareholder return, return on invested capital and adjusted earnings per share growth. These awards are in addition to the 2020 one-off co-investment award for the Chief Executive, vesting in three equal tranches based on market and non-market performance criteria. The applicable market condition for the vesting of the final tranche is on total shareholder return. Other restricted shares awarded in 2022, 2021 and 2020 generally vest depending on continuing service over periods of up to four years. Included within the total share-based payments charge in 2022 was £3m (2021: £nil; 2020: £nil) in respect of remuneration for post-acquisition services for recent acquisitions, which was included within other net gains and losses in the income statement.

Management Incentive Plan – The plan was introduced in 2017 combining the Group's Annual Incentive Plan and Long-Term Incentive Plan for senior management. The number of shares to be granted to participants is dependent on Group performance in the calendar year preceding the date of grant (on the same basis as the Annual Incentive Plan). Subsequently, the shares vest dependent on continuing service over a three-year period, and additionally, in the case of the Pearson Executive Management team, upon satisfaction of non-market based performance criteria as determined by the Remuneration Committee. Restricted shares awarded as part of the 2020 Management Incentive Plan were granted in April 2021. In 2021 this scheme was replaced by the Long-Term Incentive Plan for senior management.

The following shares were granted under restricted share arrangements:

	2022		2021	
	Number of shares 000s	Weighted average fair value £	Number of shares 000s	Weighted average fair value £
Long-Term Incentive Plan	7,584	7.61	6,394	7.27
Management Incentive Plan	–	–	630	7.71

In 2022, £26m of shares vested across the Worldwide Save for Shares Plan, the Long-Term Incentive Plan and the Management Incentive Plan.

The fair value of shares granted under the Long-Term Incentive Plan and the Management Incentive Plan that vest unconditionally is determined using the share price at the date of grant. Participants under the plans are entitled to dividends during the vesting period and therefore the share price is not discounted.

Restricted shares with a market performance condition were valued by an independent actuary using a Monte Carlo model. Restricted shares with a non-market performance condition were fair valued based on the share price at the date of grant. Non-market performance conditions are taken into consideration by adjusting the number of shares expected to vest based on the most likely outcome of the relevant performance criteria.

27. Share capital and share premium

	Number of shares 000s	Share capital £m	Share premium £m
At 1 January 2021	753,258	188	2,620
Issue of ordinary shares – share option schemes	3,544	1	6
Purchase of own shares	–	–	–
At 31 December 2021	756,802	189	2,626
Issue of ordinary shares – share option schemes	1,199	–	7
Purchase of own shares	(42,268)	(10)	–
At 31 December 2022	715,733	179	2,633

The ordinary shares have a par value of 25p per share (2021: 25p per share). All issued shares are fully paid. All shareholders are entitled to receive dividends and vote at general meetings of the company. All shares have the same rights.

On 24 February 2022, the Board approved a £350m share buyback programme in order to return capital to shareholders. During the year, approximately 42m shares were bought back and cancelled at a cost of £353m. The nominal value of these shares, £10m, was transferred to the capital redemption reserve, and the remainder of the purchase price is recorded within retained earnings. In 2021, no shares were bought back.

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern while maximising the return to shareholders through the optimisation of the debt and equity balance.

The capital structure of the Group consists of debt (see note 18), cash and cash equivalents (see note 17) and equity attributable to equity holders of the parent, comprising issued capital, reserves and retained earnings.

The Group reviews its capital structure on a regular basis and will balance its overall capital structure through payments of dividends, new share issues as well as the issue of new debt or the redemption of existing debt in line with the financial risk policies outlined in note 19.

28. Treasury shares

	Number of shares 000s	£m
At 1 January 2021	903	7
Purchase of treasury shares	2,158	16
Newly issued treasury shares	2,500	1
Release of treasury shares	(3,990)	(12)
At 31 December 2021	1,571	12
Purchase of treasury shares	4,513	37
Release of treasury shares	(4,220)	(34)
At 31 December 2022	1,864	15

The Group holds Pearson plc shares in trust to satisfy its obligations under its restricted share plans (see note 26). These shares, representing 0.3% (2021: 0.2%) of called-up share capital, are treated as treasury shares for accounting purposes and have a par value of 25p per share.

The nominal value of Pearson plc treasury shares amounts to £0.5m (2021: £0.4m). Dividends on treasury shares are waived.

At 31 December 2022, the market value of Pearson plc treasury shares was £18m (2021: £10m).

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29. Other comprehensive income

	Attributable to equity holders of the company					2022
	Fair value reserve	Translation reserve	Retained earnings	Total	Non-controlling interest	Total
All figures in £ millions						
Items that may be reclassified to the income statement						
Net exchange differences on translation of foreign operations	–	328	–	328	2	330
Currency translation adjustment disposed	–	(5)	–	(5)	–	(5)
Attributable tax	–	–	4	4	–	4
Items that are not reclassified to the income statement						
Fair value gain on other financial assets	18	–	–	18	–	18
Attributable tax	–	–	1	1	–	1
Remeasurement of retirement benefit obligations	–	–	54	54	–	54
Attributable tax	–	–	(12)	(12)	–	(12)
Other comprehensive income/(expense) for the year	18	323	47	388	2	390

	2021 ¹					
	Attributable to equity holders of the company				Non-controlling interest	Total
	Fair value reserve	Translation reserve	Retained earnings	Total		
All figures in £ millions						
Items that may be reclassified to the income statement						
Net exchange differences on translation of foreign operations	–	(6)	–	(6)	–	(6)
Currency translation adjustment disposed	–	4	–	4	–	4
Attributable tax	–	–	10	10	–	10
Items that are not reclassified to the income statement						
Fair value gain on other financial assets	4	–	–	4	–	4
Attributable tax	–	–	(1)	(1)	–	(1)
Remeasurement of retirement benefit obligations	–	–	149	149	–	149
Attributable tax	–	–	(61)	(61)	–	(61)
Other comprehensive income/(expense) for the year	4	(2)	97	99	–	99

1. Comparative balances have been restated – see Note 1b.

						2020 ¹
All figures in £ millions	Attributable to equity holders of the company				Non-controlling interest	Total
	Fair value reserve	Translation reserve	Retained earnings	Total		
Items that may be reclassified to the income statement						
Net exchange differences on translation of foreign operations	–	(109)	–	(109)	–	(109)
Currency translation adjustment disposed	–	(70)	–	(70)	–	(70)
Attributable tax	–	–	(13)	(13)	–	(13)
Items that are not reclassified to the income statement						
Fair value gain/(loss) on other financial assets	(12)	–	–	(12)	–	(12)
Attributable tax	–	–	–	–	–	–
Remeasurement of retirement benefit obligations	–	–	(23)	(23)	–	(23)
Attributable tax	–	–	2	2	–	2
Other comprehensive income/(expense) for the year	(12)	(179)	(34)	(225)	–	(225)

1. Comparative balances have been restated – see Note 1b.

30. Business combinations

On 28 January 2022, the Group acquired 100% of the share capital in Credly Inc (Credly), having previously held a 19.9% interest in the company. Credly was founded in 2012 in New York and is a digital credential service provider whose platform enables customers to design, create, issue and manage digital credentials. It now forms part of the Workforce Skills division. Total consideration was £149m comprising upfront cash consideration of £107m, Pearson's existing interest valued at £31m and £11m of deferred consideration. The deferred consideration is payable in two years, with additional amounts being payable if certain revenue and non-financial targets are met, and dependent on continuing employment, and therefore these additional amounts will be expensed over the period and are not treated as consideration.

On 28 April 2022, the Group acquired 100% of the share capital of ATI STUDIOS A.P.P.S S.R.L (Mondly), a global online learning platform offering customers learning in English and 40 other languages via its app, website, virtual reality and augmented reality products. It now forms part of the English Language Learning division. Total consideration was £135m comprising upfront cash consideration of £105m, and deferred consideration of £30m. The deferred consideration is payable over the next two years with no performance conditions attached. In addition, a further \$29.6m (c£24m) of cash and \$10m (c£8m) in shares will be paid over the next four years, dependent on continuing employment, and therefore these additional amounts will be expensed over the period and are not treated as consideration.

These transactions have resulted in the recognition of £202m of goodwill, which represents the expected growth through new products and customers, the workforce and know-how acquired and the anticipated synergies, none of which can be recognised as separate intangible assets. The goodwill is not deductible for tax purposes.

Intangible assets of £99m have been recognised in respect of Credly and Mondly. The valuations of these assets were carried out by third party specialists, and were based on discounted cash flow models. The key assumptions that feed into the valuations are the cash flow forecasts, revenue projections from existing customers, forecasted profit margins and discount rates. For Credly, £49m of intangible assets were recognised, mainly relating to the existing customer relationships that will be amortised over 20 years, and technology which will be amortised over five years. For Mondly, £50m of intangible assets were recognised, the majority of which relates to acquired technology, and will be amortised over periods up to seven years.

In 2022, the Group also made three smaller acquisitions in the period for total consideration of £11m. In December 2022, the Group announced that it had signed a deal to acquire 100% of Personnel Decisions Research Institutes, LLC, the transaction has not yet completed.

In September 2021, Pearson completed the acquisition of 100% of the share capital of Faethm Holdings Pty Limited (Faethm), having already held 9% of the share capital previously. Faethm uses artificial intelligence and analytics services to help governments, companies and workers understand the dynamic forces shaping the labour market. Faethm now forms part of the Workforce Skills division. The total consideration for the transaction was £65m, which included £10m of contingent consideration, dependent upon meeting certain earnings targets. The contingent consideration was valued at the net present value of the Group's best estimate of the amount that will be payable. In 2022, contingent consideration amounts have been settled resulting in the recognition of an £8m gain in the income statement within other net gains and losses.

In addition, the Group made two additional acquisitions of subsidiaries for total consideration of £11m. In both cases, the Group acquired 100% of the share capital of the respective entities. Opinion Interactive LLC (also known as Spotlight Education) was acquired in February 2021. MZ Development Inc. was acquired in July 2021. Both form part of the Assessment & Qualifications division.

The Group also made additional investments in associates, which are detailed in note 12, and are not included below.

Details of the fair values of the assets and liabilities recognised at the acquisition date and the related consideration is shown in the table below. Amounts for intangible assets and goodwill for Mondly are provisional as management finalise reviews of the asset valuations. There were no significant acquisitions in 2020.

All figures in £ millions	2022 Credly	2022 Mondly	2022 Other	2022 Total	2021 Total	2020 Total
Intangible assets	49	50	11	110	27	–
Deferred tax asset	7	1	–	8	11	–
Trade and other receivables	6	2	–	8	2	–
Cash and cash equivalents	12	1	–	13	4	–
Trade and other liabilities	(18)	(8)	–	(26)	(5)	–
Deferred tax liabilities	(12)	(8)	(2)	(22)	(6)	–
Net assets acquired	44	38	9	91	33	–
Goodwill	105	97	2	204	43	–
Total	149	135	11	295	76	–

Satisfied by:

Cash consideration	107	105	11	223	54	–
Contingent or deferred consideration	11	30	–	41	16	–
Fair value of existing investment	31	–	–	31	6	–
Total consideration	149	135	11	295	76	–

Credly generated revenues of £13m and a loss after tax of £4m for the period from acquisition date to 31 December 2022. Mondly generated revenues of £11m and a profit after tax of £3m for the period from acquisition date to 31 December 2022. If the acquisitions had occurred on 1 January 2022, the Group's revenue would have been £7m higher and the profit after tax would not have been materially different.

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30. Business combinations continued

Total acquisition related costs of £20m were recognised in 2022 within other net gains and losses.

The net cash outflows related to the acquisitions are set out in the table below. In addition to the current year acquisitions, the other net cash outflows on acquisition of subsidiaries in 2022 and 2021 relate to deferred payments for prior year acquisitions.

All figures in £ millions	2022 Total	2021 Total	2020 Total
Cash flow on acquisitions			
Cash – current year acquisitions	(223)	(54)	–
Cash and cash equivalents acquired	13	4	–
Deferred payments for prior year acquisitions and other items	(10)	(4)	(6)
Acquisition costs paid	(8)	(1)	–
Net cash outflow	(228)	(55)	(6)

31. Disposals and business closures

In March 2021, the Group announced that it was launching a strategic review of its international courseware local publishing businesses. In 2022, the Group disposed of its interests in the Canadian educational publisher (ERPI), Pearson Italia S.p.A, Stark Verlag GmbH, Austin Education (Hong Kong) Limited, Pearson South Africa (Pty) Ltd and various other South African companies. Total cash consideration received was £287m resulting in a pre-tax gain on disposal of £42m. All entities disposed of were previously in the Strategic Review segment. £5m of losses arose from other immaterial disposals and costs related to the wind-down of certain businesses.

Whether the associated results and cash flows of the businesses disposed in 2022 should be classified and presented as discontinued operations is a significant judgement. The Group's judgement is that the results and cash flows of the related businesses should not be classified and presented as discontinued operations. The basis of this judgement is that the businesses disposed do not constitute a separate major line of business or geographical area of operations. The Group will continue to operate in the international K12 courseware market and in all geographical areas where disposals have taken place. All of the businesses subject to this judgement are within the Strategic Review segment and represent £126m of sales for the year ended 31 December 2022 out of the total sales in the Strategic Review segment of £154m. If the Group had concluded that these businesses represented discontinued operations, their results and the related gains on disposal would not have been included within each of the continuing operations income statement lines. Profit for the period from continuing operations would have been £52m lower and this amount would have been separately presented as profit for the period from discontinued operations as a single line item. Adjusted operating profit would be unchanged.

In February 2021, the Group completed the sale of its interests in the Pearson Institute of Higher Education (PIHE) in South Africa resulting in a pre-tax loss of £5m. In October 2021, the sale of the Group's interests in K12 Sistemas in Brazil was also completed for consideration of £108 million, resulting in a gain on sale of £84m. There were no other business disposals in 2021 and additional losses of £14m relate to other disposal costs including costs related to the wind-down of certain businesses under strategic review.

In April 2020, the Group completed the sale of the remaining 25% interest in Penguin Random House resulting in a pre-tax profit of £180m. There were no other material disposals in 2020. Deferred proceeds relating to the K12 sale were received in 2022, 2021 and 2020 (see note 14).

None of the 2021 or 2020 disposals met the criteria to be considered a discontinued operation on the basis that they did not represent major lines of business or geographical areas of operations.

The table below shows a summary of the assets and liabilities disposed of:

All figures in £ millions	Notes	2022	2021	2020
Disposal of subsidiaries and associates				
Intangible assets, including goodwill		(77)	(3)	–
Property, plant and equipment		(11)	(48)	–
Investments in joint ventures and associates		–	–	(418)
Intangible assets – product development		(39)	(6)	–
Inventories		(33)	(2)	–
Trade and other receivables		(106)	(6)	–
Deferred tax		(12)	–	–
Cash and cash equivalents (excluding overdrafts)		(21)	(24)	–
Provisions for other liabilities and charges		1	3	–
Retirement benefit obligations		2	–	–
Trade and other liabilities		52	4	–
Financial liabilities – borrowings		8	67	–
Net assets disposed		(236)	(15)	(418)
Cumulative currency translation adjustment		5	(4)	70
Cash proceeds		291	108	531
Deferred proceeds		2	–	–
Costs of disposal		(25)	(24)	1
Gain on disposal		37	65	184

All figures in £ millions	2022	2021	2020
Cash flow from disposals			
Proceeds – current year disposals	291	108	531
Proceeds – prior year disposals	86	16	105
Cash and cash equivalents disposed	(21)	(24)	–
Costs and other disposal liabilities paid	(23)	(17)	(5)
Net cash inflow	333	83	631
Analysed as:			
Cash inflow from disposal of subsidiaries	333	83	100
Cash inflow from disposal of joint ventures and associates	–	–	531

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32. Held for sale

At 31 December 2022, the Group has entered into an agreement to dispose of a property that was previously accounted for as investment property. The sale is expected to complete in 2023. Two other properties are currently also in the process of being sold, with the sales also expected to complete in 2023. The properties are all classified as held for sale and have a carrying value of £16m as at 31 December 2022.

At 31 December 2021, only one property, which was disposed of in 2022, was classified as held for sale, and had a carrying value of £7m as at 31 December 2021. The businesses that were included in the Strategic Review segment as at 31 December 2021 did not meet the criteria for classification as held for sale as at 31 December 2021 on the basis that the Group was not sufficiently advanced in the sales process at that time for the sale to be considered highly probable.

The held for sale balances are analysed as follows:

	2022 Total	2021 Total
All figures in £ millions		
Non-current assets		
Property, plant and equipment	16	7
	16	7
Assets classified as held for sale	16	7
Net assets classified as held for sale	16	7

33. Cash generated from operations

Operating cash flow and free cash flow are non-GAAP measures and have been disclosed as they are part of the Group's corporate and operating measures. These measures are presented in order to align the cash flows with corresponding adjusted profit measures. The table below reconciles the statutory profit and cash flow measures to the corresponding adjusted measures. The table on the next page reconciles operating cash flow to net debt.

all figures in £ million	Statutory measures	Cost of major restructuring	Other net gains and losses	Intangible charges	UK Pension discretionary increases	Purchase/ disposal of PPE and software*	Net addition of right-of-use assets*	Dividends from joint ventures and associates	Adjusted measures	
2022										
Operating profit	271	150	(24)	56	3	–	–	–	456	Adjusted operating profit
Net Cash generated from operations	527	35	–	–	–	(133)	(29)	1	401	Operating cash flow
2021										
Operating profit	183	214	(63)	51	–	–	–	–	385	Adjusted operating profit
Net Cash generated from operations	570	24	–	–	–	(176)	(30)	–	388	Operating cash flow
2020										
Operating profit	411	–	(178)	80	–	–	–	–	313	Adjusted operating profit
Net Cash generated from operations	450	38	–	–	–	(134)	(43)	4	315	Operating cash flow

* Includes Investment property

All figures in £ millions	2022	2021	2020
Operating cash flow	401	388	315
Tax paid	(109)	(177)	2
Net finance costs paid	(35)	(54)	(50)
Net costs paid for major restructuring	(35)	(24)	(38)
Free cash flow	222	133	229
Dividends paid (including to non-controlling interests)	(157)	(149)	(147)
Net movement of funds from operations	65	(16)	82
Acquisitions and disposals	105	62	619
Disposal of lease liabilities	8	67	–
Loans repaid	–	–	48
Net equity transactions	(383)	(10)	(176)
Other movements on financial instruments	(2)	10	(20)
Movement in net debt	(207)	113	553
Opening net debt	(350)	(463)	(1,016)
Closing net debt	(557)	(350)	(463)

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33. Cash generated from operations continued

Net cash generated from operations is translated at an exchange rate approximating the rate at the date of cash flow. The difference between this rate and the average rate used to translate profit gives rise to a currency adjustment in the reconciliation between net profit and net cash generated from operations. This adjustment reflects the timing difference between recognition of profit and the related cash receipts or payments.

Operating cash flow and total free cash flow are non-GAAP (non-statutory) measures and have been disclosed and reconciled in the above table as they are commonly used by investors to measure the cash performance of the Group. In the cash flow statement, proceeds from sale of property, plant and equipment comprise:

All figures in £ millions	2022	2021
Net book amount	9	4
Profit/(loss) on sale of property, plant and equipment	5	(4)
Proceeds from sale of property, plant and equipment	14	-

The movements in the Group's current and non-current borrowings are as follows:

All figures in £ millions	2021	Fair value and other movements	Foreign exchange movements	Financing cash flows	Transfer from non-current to current	New leases/disposal of leases	2022
Financial liabilities							
Non-current borrowings	1,245	(14)	61	(76)	(92)	31	1,155
Current borrowings	157	(10)	16	(188)	92	(1)	66
Total	1,402	(24)	77	(264)	-	30	1,221

All figures in £ millions	2020	Fair value and other movements	Foreign exchange movements	Financing cash flows	Transfer from non-current to current	New leases/disposal of leases	2021
Financial liabilities							
Non-current borrowings	1,458	(20)	3	-	(160)	(36)	1,245
Current borrowings	248	9	(4)	(255)	160	(1)	157
Total	1,706	(11)	(1)	(255)	-	(37)	1,402

Non-current borrowings include bonds, derivative financial instruments and leases. Current borrowings include loans repayable within one year, derivative financial instruments and leases, but exclude overdrafts classified within cash and cash equivalents.

34. Contingencies, other liabilities and commitments

KJ Key judgements
— The application of tax legislation in relation to provisions for uncertain tax positions.
KE Key areas of estimation
— The level of provisions required in relation to uncertain tax positions is complex and each matter is separately assessed. The estimation of future settlement amounts is based on a number of factors including the status of the unresolved matter, clarity of legislation, range of possible outcomes and the statute of limitations.

There are contingent Group liabilities that arise in the normal course of business in respect of indemnities, warranties and guarantees in relation to former subsidiaries and in respect of guarantees in relation to subsidiaries, joint ventures and associates. In addition, there are contingent liabilities of the Group in respect of unsettled or disputed tax liabilities, legal claims, contract disputes, royalties, copyright fees, permissions and other rights. None of these claims are expected to result in a material gain or loss to the Group.

On 25 April 2019, the European Commission published the full decision that the United Kingdom controlled foreign company group financing partial exemption (FCPE) partially constitutes State Aid. This decision was appealed by the UK Government and other parties. On 8 June 2022, the EU General Court dismissed the appeal following which it has been concluded that a provision is now required in relation to this issue.

The total exposure in relation to this issue is calculated to be £105m (excluding interest) with a provision of £63m now included in the results representing our estimate of the expected value. At 31 December 2021, it was considered to be a contingent liability. This issue is specific to periods up to 2018 and is not a continuing exposure.

The Group is under assessment from the tax authorities in Brazil challenging the deduction for tax purposes of goodwill amortisation for the years 2012 to 2017. Similar assessments may be raised for other years. Potential total exposure (including possible interest and penalties) could be up to BRL 1,212m (£190m) up to 31 December 2022. Such assessments are common in Brazil. The Group believes that the likelihood that the tax authorities will ultimately prevail is low and that the Group's position is strong. At present, the Group believes no provision is required.

The Group is also under assessment from the UK tax authorities in relation to an issue related to the UK's FCPE legislation with the relevant years being 2019 to 2021. The maximum exposure is calculated to be £44m, with a provision of £13m currently held in relation to this issue. The provision is calculated considering a range of possible outcomes and applying a probability to each, resulting in a weighted average outcome. The possible outcomes considered range from no liability through to the full exposure (£44m). This issue is specific to 2019 to 2021 and is not a continuing exposure.

At the balance sheet date there were no commitments for capital expenditure contracted for but not yet incurred. Commitments in respect of leases are shown in note 35.

35. Leases

The Group's lease portfolio consists of approximately 720 property leases, mainly offices and test centres, together with a number of vehicle and equipment leases. The Group has elected not to recognise right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. The Group recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

As a lessee:

The amounts recognised in the income statement are as follows:

All figures in £ millions	Note	2022	2021	2020
Interest on lease liabilities		(25)	(27)	(41)
Expenses relating to short-term leases		-	-	(1)
Depreciation of right-of-use assets	10	(46)	(49)	(68)
Impairment of right-of-use assets	10	(34)	(119)	(4)

Lease liabilities are included within financial liabilities – borrowings in the balance sheet, see note 18. The maturities of the Group's lease liabilities are as follows:

All figures in £ millions	2022	2021
Less than one year	94	92
One to five years	320	318
More than five years	332	394
Total undiscounted lease liabilities	746	804
Lease liabilities included in the balance sheet	605	633
Analysed as:		
Current	71	68
Non-current	534	565

There are no lease liabilities classified as held for sale.

The amounts recognised in the cash flow statement are as follows:

All figures in £ millions	2022	2021	2020
Total cash outflow for leases as a lessee	118	115	133

At the balance sheet date commitments for capital leases contracted for but not yet incurred were £5m (2021: £3m). Extension and termination options and variable lease payments are not significant within the lease portfolio. Short-term leases to which the Group is committed at the balance sheet date are similar to the portfolio of short-term leases to which the short-term lease expense is disclosed above.

As a lessor:

In the event that the Group has excess capacity in its leased offices and warehouses, the Group subleases some of its properties under operating and finance leases.

The amounts recognised in the income statement are as follows:

All figures in £ millions	2022	2021	2020
Interest on lease receivables	5	6	9
Income from subleasing right-of-use assets (within other income)	4	2	7

The amounts recognised in the cash flow statement are as follows:

All figures in £ millions	2022	2021	2020
Total cash inflow for leases as a lessor	23	27	50

Financial statements

Notes to the consolidated financial statements *continued*

35. Leases continued

The following table sets out the maturity analysis of lease payments receivable for subleases classified as operating leases, showing the undiscounted lease payments to be received after the reporting date, and subleases classified as finance leases showing the undiscounted lease payments to be received after the reporting date and the net investment in the finance lease receivable. During the year, the investment in finance lease receivable increased by £6m (2021: decreased £15m), primarily due to new finance subleases entered into in excess of payments received.

	Operating leases	Finance leases	2022 Total	2021 Total	2020 Total
All figures in £ millions					
Less than one year	3	21	24	21	24
One to two years	5	23	28	18	24
Two to three years	5	23	28	20	18
Three to four years	5	23	28	21	18
Four to five years	5	24	29	20	18
More than five years	21	23	44	41	56
Total undiscounted lease payments receivable	44	137	181	141	158
Unearned finance income		(16)			
Net investment in finance lease receivable		121			

36. Related party transactions

Joint ventures and associates

In 2021, the Group acquired a 40% interest in Academy of Pop and is accounting for the investment as an associate. At 31 December 2022, the Group had a current liability payable to Academy of Pop of £5m (2021: £7m), which relates to the Group's initial capital contribution that had not yet been paid as at 31 December 2022. This balance was paid in early 2023.

Key management personnel

Key management personnel are deemed to be the members of the Pearson Executive Management team (see pages 60-61). It is this Committee which had responsibility for planning, directing and controlling the activities of the Group in 2022. Key management personnel compensation is disclosed below:

All figures in £ millions	2022	2021	2020
Short-term employee benefits	7	6	6
Retirement benefits	1	1	1
Share-based payment costs	9	8	6
Total	17	15	13

Short-term employee benefits and retirement benefits exclude Executive Directors which are shown on page 101 of the Directors Remuneration Report.

There were no other material related party transactions. No guarantees have been provided to related parties.

37. Events after the balance sheet date

In February 2023, the Group renegotiated its revolving credit facility, reducing the maximum facility to \$1bn.

Pearson holds investments in unlisted securities with a value at 22 December 2022 of £133m. Some of the businesses relevant to this investment, bank with Silicon Valley Bank which collapsed in early March 2023. Given the US Government has announced that it will guarantee all deposits held at Silicon Valley Bank, any subsequent risk to the valuation of these investments is considered by management to be low, but possible.

38. Accounts and audit exemptions

The Pearson plc subsidiary companies listed below are exempt from the requirements of the Companies Act 2006 relating to the audit of individual financial statements by virtue of section 479A.

	Company number		Company number
Aldwych Finance Limited	04720439	Pearson Loan Finance No. 5 Limited	12017252
Education Development International plc	03914767	Pearson Loan Finance No. 6 Limited	12030662
Faethm Limited	11842984	Pearson Loan Finance Unlimited	05144467
Longman Group (Overseas Holdings) Limited	00690236	Pearson Management Services Limited	00096263
Pearson Australia Finance Unlimited	05578463	Pearson Overseas Holdings Limited	00145205
Pearson Canada Finance Unlimited	05578491	Pearson Pension Trustee Services Limited	10803853
Pearson Dollar Finance plc	05111013	Pearson Professional Assessments Limited	04904325
Pearson Dollar Finance Two Limited	06507766	Pearson Strand Limited	08561316
Pearson Education Holdings Limited	00210859	Pearson Services Limited	01341060
Pearson Education Investments Limited	08444933	Pearson Shared Services Limited	04623186
Pearson Education Limited	00872828	Pearson Strand Finance Limited	11091691
Pearson International Finance Limited	02496206	PVNT Limited	08038068
Pearson Loan Finance No. 3 Limited	05052661	TQ Global Limited	07802458
Pearson Loan Finance No. 4 Limited	02635107		

Company balance sheet

As at 31 December 2022

All figures in £ millions	Notes	2022	2021
Assets			
Non-current assets			
Investments in subsidiaries	2	6,738	6,632
Amounts due from subsidiaries		1,667	2,387
Deferred income tax assets		44	27
Financial assets – derivative financial instruments	5	43	30
		8,492	9,076
Current assets			
Amounts due from subsidiaries		526	548
Current income tax assets		4	9
Cash and cash equivalents (excluding overdrafts)	4	240	310
Financial assets – derivative financial instruments	5	16	2
Other assets		1	–
		787	869
Total assets		9,279	9,945
Liabilities			
Non-current liabilities			
Amounts due to subsidiaries		(3,380)	(3,605)
Financial liabilities – derivative financial instruments	5	(54)	(30)
		(3,434)	(3,635)
Current liabilities			
Amounts due to subsidiaries		(1,383)	(1,853)
Other liabilities		(1)	(1)
Financial liabilities – derivative financial instruments	5	(11)	(4)
		(1,395)	(1,858)
Total liabilities		(4,829)	(5,493)
Net assets		4,450	4,452
Equity			
Share capital	6	179	189
Share premium	6	2,633	2,626
Treasury shares	7	(15)	(12)
Capital redemption reserve		28	18
Special reserve		447	447
Retained earnings – including profit for the year of £499m (2021: £27m)		1,178	1,184
Total equity attributable to equity holders of the company		4,450	4,452

These financial statements have been approved for issue by the Board of Directors on 15 March 2023 and signed on its behalf by

Sally Johnson
Chief Financial Officer

Company statement of changes in equity

Year ended 31 December 2022

All figures in £ millions	Equity attributable to equity holders of the company						
	Share capital	Share premium	Treasury shares	Capital redemption reserve	Special reserve	Retained earnings	Total
At 1 January 2022	189	2,626	(12)	18	447	1,184	4,452
Profit for the year	–	–	–	–	–	499	499
Equity-settled transactions ¹	–	–	–	–	–	38	38
Issue of ordinary shares under share option schemes ¹	–	7	–	–	–	–	7
Purchase of treasury shares	–	–	(37)	–	–	–	(37)
Release of treasury shares	–	–	34	–	–	(34)	–
Buyback of equity	(10)	–	–	10	–	(353)	(353)
Dividends	–	–	–	–	–	(156)	(156)
At 31 December 2022	179	2,633	(15)	28	447	1,178	4,450

All figures in £ millions	Equity attributable to equity holders of the company						
	Share capital	Share premium	Treasury shares	Capital redemption reserve	Special reserve	Retained earnings	Total
At 1 January 2021	188	2,620	(7)	18	447	1,290	4,556
Profit for the year	–	–	–	–	–	27	27
Equity-settled transactions ¹	–	–	–	–	–	28	28
Issue of ordinary shares under share option schemes ¹	1	6	(1)	–	–	–	6
Purchase of treasury shares	–	–	(16)	–	–	–	(16)
Release of treasury shares	–	–	12	–	–	(12)	–
Dividends	–	–	–	–	–	(149)	(149)
At 31 December 2021	189	2,626	(12)	18	447	1,184	4,452

The capital redemption reserve reflects the nominal value of shares cancelled in the Group's share buyback programme. The special reserve represents the cumulative effect of cancellation of the company's share premium account.

1. Full details of the share-based payment plans are disclosed in note 26 to the consolidated financial statements.

Company cash flow statement

Year ended 31 December 2022

All figures in £ millions	Notes	2022	2021
Cash flows from operating activities			
Net profit		499	27
Adjustments for:			
Income tax		(15)	(9)
Net finance costs		48	41
Share-based payment costs		38	28
Impairment charges		5	–
Amounts due to subsidiaries		(97)	(93)
Net cash generated from operations		478	(6)
Interest paid		(44)	(66)
Tax received		4	–
Net cash generated from/(used in) operating activities		438	(72)
Cash flows from financing activities			
Proceeds from issue of ordinary shares	6	7	6
Buyback of equity		(353)	–
Purchase of treasury shares		(37)	(16)
Dividends paid to company's shareholders		(156)	(149)
Net cash used in financing activities		(539)	(159)
Effects of exchange rate changes on cash and cash equivalents		31	–
Net decrease in cash and cash equivalents		(70)	(231)
Cash and cash equivalents at beginning of year		310	541
Cash and cash equivalents at end of year	4	240	310

Notes to the company financial statements

1. Accounting policies

The financial statements on pages 202-212 comprise the separate financial statements of Pearson plc.

These company financial statements, have been prepared on the going concern basis and in accordance with UK-adopted International Accounting Standards and with the requirements of the Companies Act 2006. The company transitioned to UK-adopted IASs on 1 January 2021. The company financial statements have also been prepared in accordance with IFRSs as issued by the International Accounting Standards Board (IASB). In respect of accounting standards applicable to the Group, there is no difference between UK-adopted IASs and IFRSs as issued by the IASB.

These consolidated financial statements, and the company financial statements, have been prepared under the historical cost convention as modified by the revaluation of financial assets and liabilities (including derivative financial instruments) at fair value.

As permitted by section 408 of the Companies Act 2006, the consolidated income statement and statement of comprehensive income have not been presented.

The company has no employees (2021: nil).

The basis of preparation and accounting policies applied in the preparation of these company financial statements are the same as those set out in note 1a to the consolidated financial statements with the addition of the following:

Investments

Investments in subsidiaries are stated at cost less provision for impairment, with the exception of certain hedged investments that are held in a foreign currency and revalued at each balance sheet date.

Lending to/from subsidiaries is considered to be an operating activity and any movements are classified as cash flows from operating activities in the cash flow statement.

Amounts owed by subsidiaries

Amounts owed by subsidiaries generally mature within five years, but can be called upon on short notice, or are repayable on demand. Amounts owed by subsidiaries are classified as current if they mature within one year of the balance sheet date or if the company intends to call the loan within one year of the balance sheet date. All other amounts are classified as non-current. The company has assessed and concluded that these loans will be fully recovered. Therefore credit losses are considered to be immaterial.

Parent company guarantees

The Company has guaranteed the repayment of bonds and certain other liabilities due by subsidiary undertakings primarily to third parties. Such guarantees are accounted for by the Company as insurance contracts. In the event of default or non-performance by the subsidiary, a liability is recorded in accordance with IAS 37.

New accounting standards

No new standards were adopted in 2022.

A number of other new pronouncements are effective from 1 January 2022 but they do not have a material impact on the company financial statements.

2. Investments in subsidiaries

All figures in £ millions	2022	2021
At beginning of year	6,632	6,619
Distributions	(49)	–
Currency revaluations	155	13
At end of year	6,738	6,632

There were no impairments in 2022 or 2021.

The recoverability of investments is tested annually for impairment in accordance with IAS 36 'Impairment of Assets'. The carrying value is compared to the asset's recoverable amount which is generally assessed on a value in use basis. Significant estimation is required to determine the recoverable amount. The value in use of the assets is calculated using a discounted cash flow methodology using financial information related to the subsidiaries including cash flow projections in conjunction with the goodwill impairment analysis performed by the Group. The key assumptions used in the cash flow projections are discount rates, perpetuity growth rates, forecast sales growth rates and forecast operating profits. See note 11 of the consolidated financial statements for further details.

Financial statements

Notes to the company financial statements *continued*

3. Financial risk management

The company's financial instruments comprise amounts due to/from subsidiary undertakings, cash and cash equivalents, derivative financial instruments and current borrowings. Derivative financial instruments are held at fair value, with all other financial instruments held at amortised cost, which approximates fair value. The company's approach to the management of financial risks is consistent with the Group's treasury policy, as discussed in note 19 to the consolidated financial statements. The company believes the value of its financial assets to be fully recoverable.

The carrying value of the company's financial instruments is exposed to movements in interest rates and foreign currency exchange rates (primarily US dollars). The company estimates that a 1% increase in interest rates would result in a £7m increase (2021: £6m increase) in the carrying value of its financial instruments, with a 1% decrease in interest rates resulting in a £6m decrease (2021: £6m decrease) in their carrying value. The company also estimates that a 10% strengthening in sterling would decrease the carrying value of its financial instruments by £136m (2021: £117m), while a 10% weakening in the value of sterling would increase the carrying value by £153m (2021: £139m). These increases and decreases in carrying value would be recorded through the income statement. Sensitivities are calculated using estimation techniques such as discounted cash flow and option valuation models. Where modelling an interest rate decrease of 1% led to negative interest rates, these points on the yield curve were adjusted to 0%.

The following table analyses the company's derivative assets and liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows (including interest) and as such may differ from the amounts disclosed on the balance sheet.

	Analysed by maturity				Analysed by currency			
	Greater than one month and less than one year	Later than one year but less than five years	Five years or more	Total	USD	GBP	Other	Total
All figures in £ millions								
At 31 December 2022								
Rate derivatives – inflows	(11)	(471)	–	(482)	(24)	(170)	(288)	(482)
Rate derivatives – outflows	1	490	–	491	224	255	12	491
FX forwards – inflows	(304)	–	–	(304)	–	(304)	–	(304)
FX forwards – outflows	313	–	–	313	–	313	–	313
Total	(1)	19	–	18	200	94	(276)	18
At 31 December 2021								
Rate derivatives – inflows	(7)	(331)	–	(338)	(9)	(150)	(179)	(338)
Rate derivatives – outflows	12	339	4	355	203	150	2	355
FX forwards – inflows	(148)	–	–	(148)	–	(148)	–	(148)
FX forwards – outflows	148	–	–	148	90	–	58	148
Total	5	8	4	17	284	(148)	(119)	17

All cash flow projections shown above are on an undiscounted basis. Any cash flows based on a floating rate are calculated using interest rates as set at the date of the last rate reset. Where this is not possible, floating rates are based on interest rates prevailing at 31 December in the relevant year. All derivative amounts are shown gross, although the company net settles these amounts wherever possible.

Fair value hedge accounting

A foreign currency exposure arises from foreign exchange fluctuations on translation of the company's investments in subsidiaries denominated in USD into GBP. The hedged risk is the risk of changes in the GBP:USD spot rate that will result in changes in the value of the USD investments when translated into GBP. The hedged items are a portion of the company's equity investment in subsidiaries denominated in USD. The hedging instruments are a portion of the company's intercompany loans due from subsidiaries which are denominated in USD.

It is expected that the change in value of each of these items will offset each other as there is a clear and direct economic relationship between the hedge and the hedged item in the hedge relationship. Hedge ineffectiveness would arise if the value of the hedged items fell below the value of the hedging instruments; however, this is unlikely as the value of the company's investments denominated in USD is significantly greater than the proposed fair value hedge programme.

The value of the hedged items and the hedging instruments is £1.4bn (2021: £1.3bn) and the change in value during the year which was used to assess hedge ineffectiveness was £155m (2021: £13m). There was no hedge ineffectiveness.

Cashflows from the €300m EUR 2025 bond are received by the company from its subsidiary creating a foreign currency exposure upon the translation from EUR to GBP. Changes in the GBP:EUR spot rate will result in changes to the value of amounts due from subsidiaries when translated into GBP. The hedged item is €100m of this amount due from subsidiaries denominated in EUR. The hedging instrument is a €100m 2025 cross currency swap. It is expected that the change in value of these items will move in the opposite directions as a result of movements in the EUR:GBP exchange rate.

Credit risk management

The company's main exposure to credit risk relates to lending to subsidiaries. Amounts due from subsidiaries are stated net of provisions for bad and doubtful debts. The credit risk of each subsidiary is influenced by the industry and country in which they operate; however, the company considers the credit risk of subsidiaries to be low as it has visibility of, and the ability to influence, their cash flows.

4. Cash and cash equivalents (excluding overdrafts)

All figures in £ millions	2022	2021
Cash at bank and in hand	240	310
	240	310

At the end of 2022, the currency split of cash and cash equivalents was US dollar 79% (2021: 66%), sterling 18% (2021: 32%) and other 3% (2021: 2%).

Cash and cash equivalents have fair values that approximate their carrying amounts due to their short-term nature. Cash and cash equivalents include the following for the purpose of the cash flow statement:

All figures in £ millions	2022	2021
Cash and cash equivalents	240	310
	240	310

5. Derivative financial instruments

The company's outstanding derivative financial instruments are as follows:

	2022			2021		
	Gross notional amounts	Assets	Liabilities	Gross notional amounts	Assets	Liabilities
All figures in £ millions						
Interest rate derivatives	437	19	(11)	385	5	(9)
Cross-currency rate derivatives	83	34	(43)	331	24	(21)
FX derivatives	916	6	(11)	430	3	(4)
Total	1,436	59	(65)	1,146	32	(34)
Analysed as expiring:						
In less than one year	1,016	16	(11)	393	2	(4)
Later than one year and not later than five years	420	43	(54)	679	30	(26)
Later than five years	–	–	–	74	–	(4)
Total	1,436	59	(65)	1,146	32	(34)

The carrying value of the above derivative financial instruments equals their fair value. Derivatives are categorised as level 2 on the fair value hierarchy. Fair values are determined by using market data and the use of established estimation techniques such as discounted cash flow and option valuation models.

6. Share capital and share premium

	Number of shares 000s	Share capital £m	Share premium £m
At 1 January 2021	753,258	188	2,620
Issue of ordinary shares – share option schemes	3,544	1	6
At 31 December 2021	756,802	189	2,626
Issue of ordinary shares – share option schemes	1,199	–	7
Buy-back of equity	(42,268)	(10)	–
At 31 December 2022	715,733	179	2,633

The ordinary shares have a par value of 25p per share (2021: 25p per share). All issued shares are fully paid. All shareholders are entitled to receive dividends and vote at general meetings of the company. All shares have the same rights.

On 24 February 2022, the Board approved a £350m share buyback programme in order to return capital to shareholders. During the year, approximately 42m shares were bought back and cancelled at a cost of £353m. The nominal value of these shares, £10m was transferred to the capital redemption reserve. In 2021, no shares were bought back.

Financial statements

Notes to the company financial statements *continued*

7. Treasury shares

	Number of shares 000s	£m
At 1 January 2021	903	7
Purchase of treasury shares	2,158	16
Newly issued treasury shares	2,500	1
Release of treasury shares	(3,990)	(12)
At 31 December 2021	1,571	12
Purchase of treasury shares	4,513	37
Release of treasury shares	(4,220)	(34)
At 31 December 2022	1,864	15

The company holds its own shares in trust to satisfy its obligations under its restricted share plans. These shares are treated as treasury shares for accounting purposes and have a par value of 25p per share.

The nominal value of the company's treasury shares amounts to £0.5m (2021: £0.4m). Dividends on treasury shares are waived.

At 31 December 2022, the market value of the company's treasury shares was £18m (2021: £10m). The gross book value of the shares at 31 December 2022 amounts to £15m (2021: £12m).

8. Contingencies

There are contingent liabilities that arise in the normal course of business in respect of indemnities, warranties and guarantees in relation to former subsidiaries and in respect of guarantees in relation to subsidiaries. The total value of guarantees made by the company in relation to its subsidiaries is £889m. In addition, there are contingent liabilities in respect of legal claims. None of these claims are expected to result in a material gain or loss to the company.

9. Audit fees

Statutory audit fees relating to the company were £38,037 (2021: £35,500).

10. Related party transactions

Subsidiaries

The company transacts and has outstanding balances with its subsidiaries. Amounts due from subsidiaries and amounts due to subsidiaries are disclosed on the face of the company balance sheet.

These loans are generally unsecured and interest is calculated based on market rates. The company has interest payable to subsidiaries for the year of £137m (2021: £91m) and interest and guarantee fees receivable from subsidiaries for the year of £105m (2021: £32m). Management fees payable to subsidiaries in respect of centrally provided services amounted to £16m (2021: £11m). Management fees receivable from subsidiaries in respect of centrally provided services amounted to £34m (2021: £30m). Dividends received from subsidiaries were £605m (2021: £72m), which includes £49m (2021: £nil) of returns of capital distributed by subsidiaries.

Associates

There were no related party transactions with associates in 2022 or 2021.

Key management personnel

Key management personnel are deemed to be the members of the Pearson Executive Management team.

It is this Committee which had responsibility for planning, directing and controlling the activities of the company in 2022. Key management personnel compensation is disclosed in note 36 to the consolidated financial statements.

11. Group companies

In accordance with section 409 of the Companies Act 2006, a full list of subsidiaries, partnerships, associates, joint ventures and joint arrangements, the country of incorporation, the registered address and the effective percentage of equity owned, as at 31 December 2022, is disclosed below. Unless otherwise stated, the shares are all indirectly held by Pearson plc. Unless otherwise stated, all wholly-owned and partly-owned subsidiaries are included in the consolidation and all associated undertakings are included in the Group's financial statements using the equity method of accounting. Principal Group companies are identified in bold.

Wholly-owned subsidiaries

Registered company name	Country of Incorp.	Reg. office	Registered company name	Country of Incorp.	Reg. office	Registered company name	Country of Incorp.	Reg. office
Addison Wesley Longman, Inc.	US	3	Falstaff Holdco Inc.	US	4	Pearson Canada Inc.	CA	80
Addison-Wesley Educational Publishers Inc.	US	4	Falstaff Inc.	US	55	Pearson Central Europe Spółka z ograniczoną odpowiedzialnością	PL	39
AEL (S) PTE Limited	SG	73	FBH, Inc.	US	4	Pearson College Limited	UK	1
Aldwych Finance Limited	UK	1	George (Shanghai) Commercial Information Consulting Co., Ltd	CN	21	Pearson DBC Holdings Inc.	US	4
ATI Professional Development LLC	US	4	Globe Fearon Inc.	US	17	Pearson Desarrollo y Capacitación Profesional Chile Limitada	CL	81
ATI Studios A.P.P.S. SRL	RO	78	Heinemann Educational Botswana (Publishers) (Proprietary) Limited	BW	8	Pearson Deutschland GmbH	DE	82
Atkey Finance Limited	IE	7	IndiaCan Education Private Limited	IN	2	Pearson Digital Learning Puerto Rico, Inc.	PR	76
Axis Finance Inc.	US	4	Integral 7, Inc.	US	4	Pearson Dollar Finance plc [†]	UK	1
Camsaw, Inc.	US	4	INTELLIPRO, INC.	US	13	Pearson Dollar Finance Two Limited	UK	1
CAMSAWUSA, Inc.	US	11	Knowledge Analysis Technologies, LLC	US	18	Pearson Educacion de Chile Limitada	CL	81
Centro Cultural Americano Franquias e Comércio Ltda.	BR	15	LCIEB Training Consultancy., Ltd	CN	64	Pearson Educacion de Colombia S.A.S.	CO	84
Century Consultants Ltd.	US	13	LessonLab, Inc.	US	17	Pearson Educacion de Mexico, S.A. de C.V.	MX	85
Certiport China Holding, LLC	US	4	Lignum Oil Company	US	4	Pearson Educacion de Panama SA	PA	86
Certiport, Inc.	US	4	LION SG PTE. LTD.	SG	73	Pearson Educacion de Peru S.A.	PE	87
Clutch Learning, Inc.	US	4	Longman (Malawi) Limited	MW	65	Pearson Educacion SA	ES	88
Cogmed Systems AB	SE	14	Longman Group(Overseas Holdings) Limited	UK	1	Pearson Education (Singapore) Pte Ltd [†]	SG	5
Connections Academy of Florida, LLC	US	20	Longman Indochina Acquisition, L.L.C.	US	4	Pearson Education Africa (Pty) Ltd	ZA	47
Connections Academy of Iowa, LLC	US	24	Longman Tanzania Limited*	TZ	68	Pearson Education Asia Limited	HK	53
Connections Academy of Maine, LLC	US	28	Longman Zambia Educational Publishers Pty Ltd	ZM	69	Pearson Education Botswana (Proprietary) Limited	BW	8
Connections Academy of Maryland, LLC	US	29	Longman Zimbabwe (Private) Ltd	ZW	47	Pearson Education do Brasil Ltda	BR	60
Connections Academy of Nevada, LLC	US	31	Longmaned Ecuador S.A.	EC	71	Pearson Education Hellas SA	GR	26
Connections Academy of New Mexico, LLC	US	32	Lumerit Education, LLC	US	41	Pearson Education Holdings Limited [†]	UK	1
Connections Academy of Oregon, LLC	US	37	Major123 Limited*	UK	50	Pearson Education Indochina Limited	TH	89
Connections Academy of Pennsylvania LLC	US	38	MeasureUp of Delaware, LLC	US	4	Pearson Education Investments Limited	UK	1
Connections Academy of Tennessee, LLC	US	40	Modern Curriculum Inc.	US	17	Pearson Education Korea Limited	KR	90
Connections Academy of Texas LLC	US	41	Multi Treinamento e Editora Ltda	BR	60	Pearson Education Limited	UK	1
Connections Education LLC	US	4	MZ Development Inc.	US	4	Pearson Education Namibia (Pty) Limited	NA	91
Connections Education of Florida, LLC	US	20	National Computer Systems Japan Co. Ltd	JP	74	Pearson Education Publishing Limited	NG	92
Connections Education, Inc.	US	4	Navy Education, LLC	US	22	Pearson Education Resources Italia S.R.L.	IT	67
Credly, Inc.	US	4	NCS Information Services Technology (Beijing) Co Ltd	CN	75	Pearson Education S.A.	UY	93
Dominie Press, Inc.	US	17	NCS Pearson Pty Ltd	AU	48	Pearson Education SA	AR	94
Dorian Finance Limited	IE	7	NCS Pearson Puerto Rico, Inc.	PR	76	Pearson Education South Africa (Pty) Ltd	ZA	47
EBNT Canada Holdings ULC	CA	58	NCS Pearson, Inc.	US	30	Pearson Education South Asia Pte. Ltd.	SG	73
EBNT Holdings Limited	CA	57	Opinion Interactive LLC	US	16	Pearson Education Taiwan Ltd	TW	9
EBNT USA Holdings Inc.	US	4	Ordinate Corporation	US	17	Pearson Education, Inc.	US	4
eCollege.com	US	4	Pearson (Beijing) Management Consulting Co., Ltd.	CN	77	Pearson Educational Measurement Canada, Inc.	CA	36
Edexcel Limited*	UK	50	Pearson America LLC	US	4	Pearson Educational Publishers, LLC	US	4
Education Development International Plc [†]	UK	1	Pearson Amsterdam B.V.	NL	79	Pearson Egitim Cozumleri Tikaret Limited Sirketi	TR	61
Education Resources (Cyprus) Limited	CY	51	Pearson Australia Finance Unlimited	UK	1	Pearson Falstaff (Holdings) Inc.	US	4
Educational Management Group, Inc.	US	52	Pearson Australia Group Pty Ltd	AU	48	Pearson Falstaff Holdco LLC	US	4
Embanet ULC	CA	44	Pearson Australia Holdings Pty Ltd	AU	48	Pearson France	FR	70
Embanet-Compass Knowledge Group Inc.	US	20	Pearson Benelux B.V.	NL	79	Pearson Funding Four Limited**	UK	50
English Language Learning and Instruction System, Inc.	US	54	Pearson Books Limited**	UK	50	Pearson Funding plc [†]	UK	1
Faethm Holdings Pty. Limited	AU	48	Pearson Brazil Finance Limited*	UK	50	Pearson Holdings Inc.	US	4
Faethm IP Pty. Limited	AU	48	Pearson Business Services Inc.	US	4	Pearson Holdings Southern Africa (Pty) Limited	ZA	47
Faethm Ltd	UK	1	Pearson Canada Assessment Inc.	CA	80	Pearson Hungary LLC	HU	25
Faethm Pty. Limited	AU	48	Pearson Canada Finance Unlimited	UK	1	Pearson India Education Services Private Limited	IN	23
Faethm USA LLC	US	6	Pearson Canada Holdings Inc.	CA	80			

Financial statements

Notes to the company financial statements *continued*

Registered company name	Country of Incorp.	Reg office
Pearson International Finance Limited†	UK	1
Pearson Investment Holdings, Inc.	US	4
Pearson Israel (P.I.) Ltd	IL	66
Pearson Japan KK	JP	49
Pearson Lanka (Private) Limited	LK	63
Pearson Lanka Support Services (Private) Limited	LK	12
Pearson Lesotho (Pty) Ltd	LS	62
Pearson Loan Finance No. 3 Limited	UK	1
Pearson Loan Finance No. 4 Limited	UK	1
Pearson Loan Finance No. 5 Limited	UK	1
Pearson Loan Finance No. 6 Limited	UK	1
Pearson Loan Finance Unlimited	UK	1
Pearson Longman Uganda Limited	UG	43
Pearson Malaysia Sdn. Bhd.	MY	59
Pearson Management Services Limited†	UK	1
Pearson Management Services Philippines Inc.	PH	33
Pearson Maryland, Inc.	US	11
Pearson Moçambique, Limitada	MZ	42
Pearson Netherlands B.V.	NL	79
Pearson Netherlands Holdings B.V.	NL	79
Pearson Nominees Limited‡	UK	1
Pearson Online Tutoring LLC	US	4
Pearson Overseas Holdings Limited†	UK	1
Pearson PEM P.R., Inc.	PR	19
Pearson Pension Nominees Limited	UK	1
Pearson Pension Property Fund Limited	UK	1
Pearson Pension Trustee Services Limited†	UK	1
Pearson Phoenix Pty Ltd	AU	48
Pearson Professional Assessments Limited	UK	1
Pearson Real Estate Holdings Inc.	US	4
Pearson Real Estate Holdings Limited**	UK	50
Pearson Schweiz AG	CH	34
Pearson Services Limited‡	UK	1
Pearson Shared Services Limited‡	UK	1
Pearson Strand Finance Limited‡	UK	1
Pearson Strand Limited	UK	1
Pearson Sweden AB	SE	14
Pearson VUE Europe B.V.	NL	79
Pearson VUE Philippines, Inc.	PH	27
Penguin Capital, LLC	US	4
PN Holdings Inc.	US	4
ProctorCam, Inc.	US	4
PT Efficient English Services	ID	83
PVNT Limited	UK	1
Reading Property Holdings LLC	US	3
Rebus Planning Associates, Inc.	US	10
Reston Publishing Company, Inc.	US	4
Rycade Capital Corporation	US	4
Shanghai AWL Education Software Ltd*	CN	72
Silver Burdett Ginn Inc.	US	4
Skylight Training and Publishing Inc.	US	52
Smarthinking, Inc.	US	4
Sound Holdings Inc.	US	4
Sparrow Phoenix Pty Ltd	AU	48
Spear Insurance Company Limited‡	BM	45
The Waite Group, Inc.	US	17
TQ Catalis Limited*	UK	50

Registered company name	Country of Incorp.	Reg office
TQ Clapham Limited*	UK	50
TQ Education and Training Limited	UK	1
TQ Education and Training Limited	SA	56
TQ Global Limited	UK	1
TQ Group Limited	UK	1
TQ Holdings Limited	UK	1
Vue Testing Services Israel Ltd	IL	46
Vue Testing Services Korea Limited	KR	35
Williams Education GmbH	DE	82

* In liquidation.
† Directly owned by Pearson plc.

11. Group companies continued

Subsidiary addresses

The following list includes all Pearson registered offices worldwide.

Registered office address	
1	80 Strand, London, WC2R 0RL, England
2	The HIVE, 3 rd Floor, No 44, Pillaiyar Koil Street, Jawaharlal Nehru Road, Anna Nagar, Chennai, TN 600040, India
3	C T Corporation System, 155 Federal St., Suite 700, Boston, MA, 02110, United States
4	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle, DE, 19801, United States
5	9, #13-05/06, North Buona Vista Drive, The Metropolis Tower One, 138588, Singapore
6	340 Halsa Dr, Chattahoochee Hills, GA, GA 30268, United States
7	1 st Floor The Liffey Trust Centre, 117-126 Sheriff Street Upper, Dublin 1, Ireland
8	Dps Consulting Services Proprietary Limited, Plot 54513, Unit 6a, Courtyard, Village, Gaborone, Botswana
9	11F, No 209, Sec. 1, Civic Blvd., Datong District, Taipei City, 10351, Taiwan (Province of China)
10	The Corporation Company, 40600 Ann Arbor Rd E Suite 201, Plymouth, MI, 48170, United States
11	The Corporation Trust Incorporated, Suite 201, 2405 York Road, Lutherville Timonium, MD, 21093, United States
12	#1, 3, 5 th Floor, East Tower, World Trade Centre, Echelon Square, Colombo, O1, Sri Lanka
13	820, Bear Tavern Road, West Trenton, Mercer, NJ, 08628, United States
14	Gustavslundsvägen 137, 167 51 Bromma, Stockholm, Sweden
15	Avenida Francisco Matarazzo nº 1400 Edificio Milano – 7 ^o andar, Conjunto 72 – Sala 25 de Março – Agua Branca, São Paulo, 05001 903, Brazil
16	105 E Street #2A, Davis, CA, CA 95616, United States
17	C T Corporation System, 330 N Brand Blvd., Glendale, CA, 91203-2336
18	The Corporation Company, 7700 E Arapahoe Rd Suite 220, Centennial, CO, 80112-1268, United States
19	500, 401, Calle de la Tanca Edificio Ochoa, San Juan, 00901-1969, Puerto Rico
20	C T Corporation System, 1200, South Pine Island Road, Plantation, FL, 33324, United States
21	Suite A7b, 3/F, No. 586 Longchang Road, Yangpu District, Shanghai, China
22	CT Corportion System, 289 S Culver St, Lawrenceville, GA, 30046-4805, United States
23	7 th Floor, SDB2, ODC 7, 8 & 9, Survey No.01 ELCOT IT/ITES - SEZ, Sholinganallur, Chennai, TN 600119, India
24	C T Corporation System, 400 E Court Ave, Des Moines, IA, 50309, United States
25	22 B, 13 em, Népfürdő utca, Budapest, 1138, Hungary
26	4 Zalogou Str., 15343 Agia Paraskevi, Athens, Greece
27	27/F Trident Tower, 312 Sen. Gil Puyat Avenue, Makati City, Metro Manila, Philippines
28	C T Corporation System, 128 State St #3, Augusta, ME, 04330, United States
29	7 St. Paul Street, Suite 1660, Baltimore, MD, 21202, United States
30	C T Corporation System Inc., 1010 Dale Street North, St Paul, MN, 55117-5603, United States
31	The Corporation Trust Company of Nevada, 701 S Carson St, Suite 200, Carson City, NV, 89701, United States
32	C T Corporation System, 206 S Coronado Ave, Espanola, NM, 87532-2792, United States

Registered office address	
33	7/F North Tower, Rockwell Business Center COR. Sheridan & United Street, Brgy. Highway Hills, Mandaluyong, Philippines
34	10 Gewerbestrasse, Cham, 6330, Switzerland
35	21, Mugyo-ro Jung-gu, Seoul, Republic of Korea
36	199 Bay Street, Commerce Court West, Suite 2800, Toronto, ON, M5L1A9, Canada
37	C T Corporation System, 780 Commercial Street SE, STE 100, Salem, OR, OR 97301, United States
38	C T Corporation System, 600 N. 2 nd Street, Suite 401, Harrisburg, PA, 17101-1071, United States
39	Ulica Szamocka 8 01-748, Warszawa, Poland
40	C T Corporation System, 300 Montvue Rd, Knoxville, TN, 37919-5546, United States
41	CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX, 75201, United States
42	Numero 776, Avenida 24 de Julho, Maputo, Mozambique
43	Plot 8, Berkley Road, Old Kampala, Uganda
44	Blakes, Cassels & Graydon LLP, Suite 3500, 855 - 2 nd Street SW, Calgary, AB, T2P 4J8, Canada
45	Power House, 7 Par-la-ville Road, PO Box 1826, Hamilton, HM 11, Bermuda
46	Derech Ben Gurion 2, BSR Building 9 th Floor, Ramat Gan, 52573, Israel
47	Auto Atlantic, 4 th Floor, Corner Hertzog Boulevard and Heerengracht, Cape Town, 8001, South Africa
48	459-471 Church Street, Richmond, Melbourne, VIC, 3121, Australia
49	11F Kanda Square, 2-2-1 Kanda-Nishikicho, Chiyoda-ku, Tokyo, 101-0054, Japan
50	Kroll Advisory Ltd., The Shard, 32 London Bridge Street, London, SE1 9SG, England
51	195, Archbishop Makarios III Avenue, Neocleous House, Limassol, 3030, Cyprus
52	Illinois Corporation Service Company, 700 S 2 nd Street, Springfield, IL, 62703, United States
53	18/F, 1063 King's Road, Quarry Bay, Hong Kong
54	251, Little Falls Drive, Corporation Service Company, Wilmington, DE, 19808, United States
55	28 Liberty Street, New York, NY, 10005, United States
56	King Fahad Road, Olaya, Riyadh, 58774, 11515, Saudi Arabia
57	44 Chipman Hill, Suite 1000, Saint Jon, NB, E2L 4S6, Canada
58	Suite 2600, Three Bentall Centre, P.O. Box 49314, 595 Burrard Street, Vancouver, BC, V7X 1L3, Canada
59	Unit 30-01, Level 30, Tower A, Vertical Business Suite, Avenue 3, Bangsar South, No 8, Jalan Kerinchi, 59200 Kuala Lumpur, Malaysia
60	Avenida José Luiz Mazzali, nº 450, Sala H, Setor Módulo 03B, GLP Louveira I, Santo Antônio, Louveira, SP, CEP 13.290-000, Brazil
61	Nida Kule Kozyatagi, Kozyatagi Mahallesi, Degirmen Sokak No:18 Kat:6 D:15, Kadikoy, Istanbul, 34742, Turkey
62	1 st Floor Christie House, Orpen Road, Maseru, Lesotho
63	MAGA ONE-Level 22, No. 200, Nawala Road, Narahenpita, Colombo 05, 11222, Sri Lanka
64	Room 305, Building 2, 6555 Shangchuan Road, Pudong District, Shanghai, China
65	AMG Global, Global House, Kristwick, Masauko Chipembere Highway, Blantyre, Malawi
66	Meitar Law Offices, 16 Abba Hillel Rd., Ramat Gan, 5250608, Israel
67	Via Costanza Arconati, 1, Milano, 20135, Italy
68	P O Box 45, IPS Building, Maktaba Street, Dar es Salaam, Tanzania

Registered office address	
69	Plot 1281, Lungwebungu Road, Rhodes Park, Lusaka, Zambia
70	1er étage, 2 rue Jean Lantier, Paris, 75001, France
71	Andalucía y cordero E12-35. Edificio CYEDE piso 1, Oficina 11, Sector “La Floresta”, Quito, Pichincha, Ecuador
72	Suite 302-9,Block 3, No. 333 Weining Road, Changning District, Shanghai, China
73	15-01, 63 Chulia Street, 049514, Singapore
74	Teikoku Hotel Tower 18F, 1-1-1 Uchi Saiwai-Cho, Chiyoda-ku, Tokyo, Japan
75	Suite 1201, Tower 2, No. 36 North Third Ring East Road, Dongcheng District, Beijing, China
76	268 Munoz Rivera Avenue, Suite 1400, San Juan, 00918, Puerto Rico
77	Suite 1208, 12/F, Tower 2, No. 36 North Third Ring East Road, Dongcheng District, Beijing, China
78	Str. Politehnicii 3, Braşov, 500019, Romania
79	Kabelweg 37, Amsterdam, 1014 BA, Netherlands
80	176 Yonge Street, 6 th Floor, Toronto, ON, M5C 2L7, Canada
81	Oficina N°117, edificio Casa Colorada, calle Merced N°838-A Santiago Centro, Santiago, Chile
82	c/o Pearson Deutschland GmbH, St.-Martin-Str. 82, Munich, 81541, Germany
83	30 th Floor, Ratu Plaza Office Tower, Jl. Jend. Sudirman Kav 9, Jakarta, 10270, Indonesia
84	Carrera 7 Nro 156 – 68, Piso 26, Bogota, Colombia
85	Calle Antonio Dovali Jaime #70, Torre B, Piso 6, Col. Zedec ed Plaza Santa Fe, del Álvaro Obregon, Ciudad de Mexico, CP 01210, Mexico
86	Punta Pacifica, Torres de las Americas, Torre A Piso 15 Ofic. 1517, Panama, 0832-0588, Panama
87	Cal. Los Halcones, no. 275, Urb. Limatombo, Lima, Perú
88	16, Ribera del Loira, Madrid, 28042, Spain
89	87/1 Capital Tower Building, All Seasons Place unit 1604 – 6 16 th floor, Wireless Road, Lumpini, Pathumwan, Bangkok, Thailand
90	6F Kwanjeong Building, 35, Cheonggyecheon-Ro, Jongno-gu, Seoul, 03188, Republic of Korea
91	Unit 7 Kingland Park, 98 Nickel Street, Prosperita, Windhoek, Namibia
92	8, Secretariat Road, Obafemi Awolowo Way, Alausa, Ikeja, Lagos State, Nigeria
93	Juan Benito Blanco 780 – Plaza Business Center Montevideo, Uruguay
94	498, Libertador Ave, City of Buenos Aires. 3 rd floor, Buenos Aires, Argentina

Financial statements

Notes to the company financial statements *continued*

Partly-owned subsidiaries

Registered company Name	Country of Incorp.	% Owned	Reg office
Certiport China Co Ltd	CN	50.69	1
Educational Publishers LLP	UK	85	2
GED Domains LLC	US	70	3
GED Testing Service LLC	US	70	4
Pearson Education Achievement Solutions (RF) (Pty) Limited	ZA	97.3	5
Pearson Pension Trustee Limited	UK	50	2

Associated undertakings

Registered company Name	Country of Incorp.	% Owned	Reg office
Academy of Pop LLC	US	40	6
Learn Capital Special Opportunities Fund I, L.P. [‡]	US	99.59	8
Learn Capital Venture Partners II, L.P. [‡]	US	72.93	8
Learn Capital Venture Partners IIIA, L.P. [‡]	KY	99	9
Learn Capital Venture Partners, L.P. [‡]	US	99.15	8
Peking University Pearson (Beijing) Cultural Development Co., Ltd	CN	45	10
Prepona Sistemas de Testagem e Avaliação S.A.	BR	22.2	7
Pui Man Publishing Limited	CN	49	11
Smashcut, Inc.	US	25.93	12
The Egyptian International Publishing Company-Longman	EG	49	13

* In liquidation.
‡ Accounted for as an 'Other financial asset' within non-current assets.

Partly-owned subsidiaries and associated undertakings company addresses

Registered office address
1 Suite 1804, No.99 Huichuan Road, Changning District, Shanghai City, China
2 80 Strand, London, WC2R 0RL, England
3 C.T Corporation System, 4701 Cox Road, Suite 285, Glen Allen, Henrico, VA, 23060-0000, United States
4 The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle, DE, 19801, United States
5 Auto Atlantic, 4 th Floor, Corner Hertzog Boulevard and Heerengracht, Cape Town, 8001, South Africa
6 251, Little Falls Drive, Corporation Service Company, Wilmington, DE, 19808, United States
7 SIS 1107A1112, 35 Rua Pedro Lessa, Centro, Rio de Janeiro, RJ, 20030-030, Brazil
8 Incorporating Services, Ltd. 3500 S Dupont Way, Dover, Kent, DE, United States
9 Campbells Corporate Services Limited, Floor 4, Willow House, Cricket Square, Grand Cayman, KY1-9010, Cayman Islands
10 Suite 216, No. 127-1 Zhongguancun North Street, Haidian District, Beijing, China
11 Rua de Pequim No. 230-246 17-L, Macau Finance Centre, Macau
12 C/o Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware, 19808, United States
13 10a Hussein Wassef St, Midan Missaha, Dokki Giza, 12311, Egypt

Five-year summary

All figures in £ millions	2022	2021	2020	2019	2018
Sales: By operating segment					
Assessment & Qualifications*	1,444	1,238	1,118		
Virtual Learning	820	713	692		
English Language Learning	321	238	218		
Workforce Skills	204	172	163		
Higher Education	898	849	956		
Strategic review*	154	218	250		
Total sales	3,841	3,428	3,397	3,869	4,129
Adjusted operating profit: By operating segment					
Assessment & Qualifications*	258	219	147		
Virtual Learning	70	32	29		
English Language Learning	25	15	1		
Workforce Skills	(3)	27	26		
Higher Education	91	73	93		
Strategic review*	15	19	16		
Penguin Random House	–	–	1		
Total adjusted operating profit	456	385	313	581	546
Operating margin – continuing	11.9%	11.2%	9.2%	15.0%	13.2%
Adjusted earnings					
Total adjusted operating profit	456	385	313	581	546
Net finance costs	(1)	(57)	(61)	(41)	(24)
Income tax	(71)	(64)	(35)	(89)	27
Non-controlling interest	(2)	(1)	–	(2)	(2)
Adjusted earnings	382	263	217	449	547
Weighted average number of shares (millions)	738.1	754.1	755.4	777.0	778.1
Adjusted earnings per share	51.8p	34.9p	28.7p	57.8p	70.3p

Prior periods have not been restated to reflect the adoption of IFRS 16 in 2019.

Sales and adjusted operating profit for periods prior to 2020 have not been restated to reflect the new organisational structure including the transfer of retained English-speaking Canadian and Australian K12 Courseware businesses from Strategic review to the Assessment & Qualifications division.

* Comparative amounts for 2021 and 2020 have been restated to reflect the move between operating segments.