CONSOLIDATED PRIMARY STATEMENTS

Consolidated income statement

		Year ended 31 July 2022			Year ended 31 July 2021		
	Notes	Headline £m	Non-headline (note 3) £m	Total £m	Headline £m	Non-headline (note 3) £m	Total £m
CONTINUING OPERATIONS							
Revenue	1	2,566	–	2,566	2,406	–	2,406
Operating costs	2	(2,149)	(300)	(2,449)	(2,034)	(46)	(2,080)
Operating profit/(loss)	2	**417**	**(300)**	**117**	**372**	**(46)**	**326**
Interest receivable	4	14	–	14	9	–	9
Interest payable	4	(55)	–	(55)	(49)	–	(49)
Other financing gains/(losses)	4	–	20	20	–	(52)	(52)
Other finance income – retirement benefits	4	–	7	7	–	6	6
Finance (costs)/income	4	**(41)**	**27**	**(14)**	(40)	(46)	(86)
Profit/(loss) before taxation		**376**	**(273)**	**103**	**332**	**(92)**	**240**
Taxation	6	(104)	14	(90)	(96)	13	(83)
Profit/(loss) for the year		**272**	**(259)**	**13**	**236**	**(79)**	**157**
DISCONTINUED OPERATIONS							
Profit/(loss) from discontinued operations	27	49	973	1,022	134	(6)	128
PROFIT/(LOSS) FOR THE YEAR		**321**	**714**	**1,035**	**370**	**(85)**	**285**
Profit/(loss) for the year attributable to:							
Smiths Group shareholders – continuing operations		270	(259)	11	235	(79)	156
Smiths Group shareholders – discontinued operations		49	973	1,022	134	(6)	128
Non-controlling interests		2	–	2	1	–	1
		321	**714**	**1,035**	**370**	**(85)**	**285**
EARNINGS PER SHARE	5						
Basic				267.1p			71.7p
Basic – continuing				2.8p			39.4p
Diluted				266.0p			71.3p
Diluted – continuing				2.8p			39.1p

References in the consolidated income statement, consolidated statement of comprehensive income, consolidated balance sheet, consolidated statement of changes in equity and consolidated cash-flow statement relate to notes on pages 116 to 163, which form an integral part of the consolidated accounts.

Consolidated statement of comprehensive income

	Notes	Year ended 31 July 2022 £m	Year ended 31 July 2021 represented* £m
PROFIT FOR THE YEAR		**1,035**	**285**
Other comprehensive income (OCI)			
OCI which will not be reclassified to the income statement:			
Re-measurement of retirement benefits assets and obligations	8	(17)	13
Taxation on post-retirement benefits movements	6	–	(6)
Fair value movements on financial assets at fair value through OCI	14	(63)	4
		(80)	11
OCI which will be reclassified and reclassifications:			
Fair value gains and reclassification adjustments:			
– deferred in the period on cash-flow and net investment hedges		(82)	82
– reclassified to income statement on cash-flow and net investment hedges		5	2
		(77)	84
Foreign exchange (FX) movements net of recycling:			
Exchange gains/(losses) on translation of foreign operations		276	(166)
Exchange gains recycled to the income statement on disposal of business		(196)	–
		80	(166)
Total other comprehensive income, net of taxation		**(77)**	**(71)**
Total comprehensive income		**958**	**214**
Attributable to:			
Smiths Group shareholders		957	214
Non-controlling interests		1	–
		958	**214**
Total comprehensive income attributable to Smiths Group shareholders arising from:			
Continuing operations		131	152
Discontinued operations		827	62
		958	**214**

* The comparative year has been represented to include 'Fair value movements on financial assets at fair value through OCI' within the 'OCI which will not be reclassified to the income statement' subtotal rather than within the 'OCI which will be reclassified and reclassifications' subtotal. This reclassification has no impact on total other comprehensive income in the comparative year ended 31 July 2021.

Consolidated balance sheet

	Notes	31 July 2022 £m	31 July 2021 £m
NON-CURRENT ASSETS			
Intangible assets	10	1,588	1,498
Property, plant and equipment	12	243	212
Right of use assets	13	106	108
Financial assets – other investments	14	395	11
Retirement benefit assets	8	309	546
Deferred tax assets	6	95	92
Trade and other receivables	16	69	59
Financial derivatives	20	–	75
		2,805	**2,601**
CURRENT ASSETS			
Inventories	15	570	381
Current tax receivable	6	50	75
Trade and other receivables	16	738	630
Cash and cash equivalents	18	1,056	405
Financial derivatives	20	4	2
Assets held for sale	27	–	1,243
		2,418	**2,736**
TOTAL ASSETS		**5,223**	**5,337**
CURRENT LIABILITIES			
Financial liabilities:			
– borrowings	18	(509)	(9)
– lease liabilities	18	(29)	(27)
– financial derivatives	20	(27)	(3)
Provisions	23	(88)	(46)
Trade and other payables	17	(682)	(530)
Current tax payable	6	(64)	(89)
Liabilities held for sale	27	–	(283)
		(1,399)	**(987)**
NON-CURRENT LIABILITIES			
Financial liabilities:			
– borrowings	18	(538)	(1,372)
– lease liabilities	18	(90)	(94)
– financial derivatives	20	(20)	–
Provisions	23	(247)	(241)
Retirement benefit obligations	8	(115)	(128)
Corporation tax payable	6	(3)	(5)
Deferred tax liabilities	6	(44)	(28)
Trade and other payables	17	(46)	(59)
		(1,103)	**(1,927)**
TOTAL LIABILITIES		**(2,502)**	**(2,914)**
NET ASSETS		**2,721**	**2,423**
SHAREHOLDERS' EQUITY			
Share capital	24	136	149
Share premium account		365	363
Capital redemption reserve	26	19	6
Revaluation reserve	26	–	1
Merger reserve	26	235	235
Cumulative translation adjustments		487	509
Retained earnings		1,659	1,367
Hedge reserve	26	(202)	(228)
Total shareholders' equity		**2,699**	**2,402**
Non-controlling interest equity	26	22	21
TOTAL EQUITY		**2,721**	**2,423**

The accounts on pages 103 to 163 were approved by the Board of Directors on 22 September 2022 and were signed on its behalf by:

Paul Keel
CHIEF EXECUTIVE OFFICER

Clare Scherrer
CHIEF FINANCIAL OFFICER

Consolidated statement of changes in equity

	Notes	Share capital and share premium £m	Other reserves £m	Cumulative translation adjustments £m	Retained earnings £m	Hedge reserve £m	Equity shareholders' funds £m	Non-controlling interest £m	Total equity £m
At 31 July 2021		**512**	**242**	**509**	**1,367**	**(228)**	**2,402**	**21**	**2,423**
Profit for the year		–	–	–	1,033	–	1,033	2	1,035
Other comprehensive income:									
– re-measurement of retirement benefits after tax		–	–	–	(17)	–	(17)	–	(17)
– FX movements net of recycling		–	(1)	(22)	1	103	81	(1)	80
– fair value gains and related tax		–	–	–	(63)	(77)	(140)	–	(140)
Total comprehensive income for the year		–	**(1)**	**(22)**	**954**	**26**	**957**	**1**	**958**
Transactions relating to ownership interests:									
Issue of new equity shares	24	2	–	–	–	–	2	–	2
Purchase of shares by Employee Benefit Trust		–	–	–	(16)	–	(16)	–	(16)
Proceeds from exercise of share options		–	–	–	1	–	1	–	1
Share buybacks	24	(13)	13	–	(511)	–	(511)	–	(511)
Dividends:									
– equity shareholders	25	–	–	–	(150)	–	(150)	–	(150)
Share-based payment	9	–	–	–	14	–	14	–	14
At 31 July 2022		**501**	**254**	**487**	**1,659**	**(202)**	**2,699**	**22**	**2,721**

	Notes	Share capital and share premium £m	Other reserves £m	Cumulative translation adjustments £m	Retained earnings £m	Hedge reserve £m	Equity shareholders' funds £m	Non-controlling interest £m	Total equity £m
At 31 July 2020		510	242	674	1,259	(312)	2,373	21	2,394
Profit for the year		–	–	–	284	–	284	1	285
Other comprehensive income:									
– re-measurement of retirement benefits after tax		–	–	–	7	–	7	–	7
– FX movements net of recycling		–	–	(165)	–	–	(165)	(1)	(166)
– fair value gains and related tax		–	–	–	4	84	88	–	88
Total comprehensive income for the year		**–**	**–**	**(165)**	**295**	**84**	**214**	**–**	**214**
Transactions relating to ownership interests:									
Exercises of share options	24	2	–	–	–	–	2	–	2
Receipt of capital from non-controlling interest		–	–	–	–	–	–	1	1
Purchase of own shares	24	–	–	–	(16)	–	(16)	–	(16)
Dividends:									
– equity shareholders	25	–	–	–	(185)	–	(185)	–	(185)
– non-controlling interest		–	–	–	–	–	–	(1)	(1)
Share-based payment	9	–	–	–	14	–	14	–	14
At 31 July 2021		512	242	509	1,367	(228)	2,402	21	2,423

Consolidated cash-flow statement

	Notes	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Net cash inflow from operating activities	28	**279**	**535**
Cash-flows from investing activities			
Expenditure on capitalised development		(22)	(27)
Expenditure on other intangible assets		(8)	(12)
Purchases of property, plant and equipment		(58)	(78)
Disposals of property, plant and equipment		3	2
Capital returned by other investments		–	7
Acquisition of businesses		–	(83)
Investment in financial asset – discontinued operations		–	(14)
Proceeds on disposal of subsidiaries, net of cash disposed		1,331	–
Net cash-flow used in investing activities		**1,246**	**(205)**
Cash-flows from financing activities			
Proceeds from exercise of share options	24	2	2
Share buybacks	24	(511)	–
Purchase of shares by Employee Benefit Trust	26	(16)	(16)
Proceeds received on exercise of employee share options		1	–
Settlement of cash-settled options		(1)	–
Dividends paid to equity shareholders	25	(150)	(185)
Lease payments		(38)	(44)
Reduction and repayment of borrowings		(295)	–
Cash inflow from matured derivative financial instruments		23	4
Net cash-flow used in financing activities		**(985)**	**(239)**
Net increase in cash and cash equivalents		**540**	**91**
Cash and cash equivalents at beginning of year		405	366
Movement in net cash held in disposal group		48	(28)
Foreign exchange rate movements		62	(24)
Cash and cash equivalents at end of year	18	**1,055**	**405**
Cash and cash equivalents at end of year comprise:			
– cash at bank and in hand		242	219
– short-term deposits		814	186
		1,056	405
– bank overdrafts		(1)	–
		1,055	**405**

ACCOUNTING POLICIES

Basis of preparation

The accounts have been prepared in accordance with International Accounting Standards in conformity with the requirements of the Companies Act 2006.

The consolidated financial statements have been prepared under the historical cost convention modified to include revaluation of certain financial instruments, share options and pension assets and liabilities, held at fair value as described below.

Going concern

The Directors are satisfied that the Group has adequate resources to continue to operate for a period not less than 12 months from the date of approval of the financial statements and that there are no material uncertainties around their assessment. Accordingly, the Directors continue to adopt the going concern basis of accounting.

The Group's business activities, together with the factors likely to affect its future development, performance and position, are set out in the Strategic Report on pages 5 to 55. The Group's financial position, cash-flows, liquidity and borrowing facilities are described in the CFO review section on pages 15 to 16.

Other factors considered by the Board as part of their going concern assessment included the inherent uncertainties in cash-flow forecasts. Based on the above, the Directors have concluded that the Group is well placed to manage its financing and other business risks satisfactorily, and they have a reasonable expectation that the Group will have adequate resources to continue in operation for at least 12 months from the signing date of these financial statements. They therefore consider it appropriate to adopt the going concern basis of accounting in preparing the financial statements.

Key estimates and significant judgements

The preparation of the accounts in conformity with generally accepted accounting principles requires management to make estimates and judgements that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the accounts and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from these estimates.

The key sources of estimation uncertainty together with the significant judgements and assumptions used for these consolidated financial statements are set out below.

Sources of estimation uncertainty

Impairment reviews of intangible assets

In carrying out impairment reviews of intangible assets, a number of significant assumptions have to be made when preparing cash-flow projections to determine the value in use of the asset or cash generating unit (CGU). These include the future rate of market growth, discount rates, the market demand for the products acquired, the future profitability of acquired businesses or products, levels of reimbursement, and success in obtaining regulatory approvals. If actual results differ or changes in expectations arise, impairment charges may be required which would adversely impact operating results.

Critical estimates, and the effect of variances in these estimates, are disclosed in note 11.

Retirement benefits

Determining the value of the future defined benefit obligation involves significant estimates in respect of the assumptions used to calculate present values. These include future mortality, discount rate and inflation. The Group uses previous experience and independent actuarial advice to select the values for critical estimates. A portion of UK pension liabilities are insured via bulk annuity policies which broadly match the scheme obligation to identified groups of pensioners. These assets are valued by an external qualified actuary at the actuarial valuation of the corresponding liability, reflecting this matching relationship.

The Group's principal defined benefit pension plans are in the UK and the US and these have been closed so that no future benefits are accrued. Critical estimates for these plans, and the effect of variances in these estimates, are disclosed in note 8.

Provisions for liabilities and charges

The Group has made provisions for claims and litigations where it has had to defend itself against proceedings brought by other parties. These provisions have been made for the best estimate of the expected expenditure required to settle each obligation, although there can be no guarantee that such provisions (which may be subject to potentially material revision from time to time) will accurately predict the actual costs and liabilities that may be incurred. The most significant of these litigation provisions are described below.

John Crane, Inc. (JCI), a subsidiary of the Group, is one of many co-defendants in litigation relating to products previously manufactured which contained asbestos. Provision of £229m (FY2021: £212m) has been made for the future defence costs which the Group is expected to incur and the expected costs of future adverse judgements against JCI. Whilst well-established incidence curves can be used to estimate the likely future pattern of asbestos-related disease, JCI's claims experience is significantly impacted by other factors which influence the US litigation environment. These can include: changing approaches on the part of the plaintiffs' bar; changing attitudes amongst the judiciary at both trial and appellate levels; and legislative and procedural changes in both the state and federal court systems. Because of the significant uncertainty associated with the future level of asbestos claims and of the costs arising out of the related litigation, there can be no guarantee that the assumptions used to estimate the provision will result in an accurate prediction of the actual costs that will be incurred.

In quantifying the expected costs JCI takes account of the advice of an expert in asbestos liability estimation. The following estimates were made in preparing the provision calculation:

- the period over which the expenditure can be reliably estimated is judged to be ten years, based on past experience regarding significant changes in the litigation environment that have occurred every few years and on the amount of time taken in the past for some of those changes to impact the broader asbestos litigation environment. See note 23 for a sensitivity showing the impact on the provision of reducing or increasing this time horizon;
- the future trend of legal costs, the rate of future claims filed, the rate of successful resolution of claims, and the average amount of judgements awarded have been projected based on the past history of JCI claims and well-established tables of asbestos incidence projections, since this is the best available evidence. Claims history from other defendants is not used to calculate the provision because JCI's defence strategy generates a significantly different pattern of legal costs and settlement expenses. See note 23 for a sensitivity showing the range of expected future spend.

Titeflex Corporation, a subsidiary of the Group in the Flex-Tek division, has received a number of claims from insurance companies seeking recompense on a subrogated basis for the effects of damage allegedly caused by lightning strikes in relation to its flexible gas piping product. It has also received a number of product liability claims regarding this product, some in the form of purported class actions. Titeflex Corporation believes that its products are a safe and effective means of delivering gas when installed in accordance with the manufacturer's instructions and local and national codes; however, some claims have been settled on an individual basis without admission of liability. Provision of £52m (FY2021: £47m) has been made for the costs which the Group is expected to incur in respect of these claims. In preparing the provision calculation, key estimates have been made about the impact of safe installation initiatives on the level of future claims. See note 23 for a sensitivity showing the impact on the provision of reducing or increasing the expected impact. However, because of the significant uncertainty associated with the future level of claims, there can be no guarantee that the assumptions used to estimate the provision will result in an accurate prediction of the actual costs that may be incurred.

Taxation

The Group has recognised deferred tax assets of £103m (FY2021: £144m) relating to losses and £69m (FY2021: £65m) relating to the John Crane, Inc. and Titeflex Corporation litigation provisions. The recognition of assets pertaining to these items requires management to make significant estimates as to the likelihood of realisation of these deferred tax assets and the phasing and attribution of future taxable profits. This is based on a number of factors, which management use to assess the expectation that the benefit of these assets will be realised, including expected future levels of operating profit, expenditure on litigation, pension contributions and the timing of the unwind of other tax positions.

Taxation liabilities included provisions of £38m (FY2021: £34m), the majority of which related to the risk of challenge to the geographic allocation of profits by tax authorities.

In addition to the risks provided for, the Group faces a variety of other tax risks, which result from operating in a complex global environment, including the ongoing reform of both international and domestic tax rules, new and ongoing tax audits in the Group's larger markets and the challenge to fulfil ongoing tax compliance filing and transfer pricing obligations given the scale and diversity of the Group's global operations.

The Group anticipates that a number of tax audits are likely to conclude in the next 12 to 24 months. Due to the uncertainty associated with such tax items, it is possible that the conclusion of open tax matters may result in a final outcome that varies significantly from the amounts noted above.

Revenue recognition

Revenue is recognised as the performance obligations to deliver products or services are satisfied and revenue is recorded based on the amount of consideration expected to be received in exchange for satisfying the performance obligations.

Smiths Detection and Smiths Interconnect have multi-year contractual arrangements for the sale of goods and services. Where these contracts have separately identifiable components with distinct patterns of delivery and customer acceptance, revenue is accounted for separately for each identifiable component.

The Group enters into certain contracts for agreed fees that are performed across more than one accounting period and revenue is recognised over time. Estimates are required at the balance sheet date when determining the stage of completion of the contract activity. This assessment requires the expected total costs of the contract and the remaining costs to complete the contract to be estimated.

At 31 July 2022, the Group held contracts with a total value of £181m (2021: £166m), of which £135m (2021: £99m) had been delivered and £47m (2021: £67m) remains fully or partially unsatisfied. £37m of the unsatisfied amount is expected to be recognised in the coming year, with the remainder being recognised within two years. A 5% increase in the remaining cost to complete the contracts would have reduced Group operating profit in the current year by less than £2m (2021: less than £2m).

Valuation of financial assets

Following the sale of Smiths Medical the Group has recognised a financial asset for the fair value of the $100m additional sales consideration that is contingent on the future share price performance of the enlarged ICU Medical, Inc (ICU) business.

The earnout requires the Group to retain beneficial ownership of at least 1.25m ICU shares and for the ICU share price to average $300 or more for any 30-day period during the first three years post-completion, or for any 45-day period in the fourth year post-completion.

An external valuation firm has been engaged to undertake Monte Carlo valuation simulations in order to estimate the probability of the future ICU share price exceeding $300. These valuation simulations have determined a fair value of £19m (US$23m).

Significant judgements made in applying accounting policies

Business combinations

On the acquisition of a business, the Group has to make judgements on the identification of specific intangible assets which are recognised separately from goodwill and then amortised over their estimated useful lives. These include items such as brand names and customer lists, to which value is first attributed at the time of acquisition. The capitalisation of these assets and the related amortisation charges are based on judgements about the value and economic life of such items.

Where acquisitions are significant, appropriate advice is sought from professional advisers before making such allocations.

Where the Group has a contractual option to acquire a business in the future, management have applied judgement in determining whether it has substantive voting rights in the business and whether the business should be accounted for as a subsidiary or associate. In applying these judgements, management have reviewed whether the option and any related legal/commercial agreements provide the Group with power or significant influence over the business and have assessed whether there are any barriers that prevent the Group from exercising these rights.

Retirement benefits

At 31 July 2022 the Group has recognised £309m of retirement benefit assets (FY2021: £546m) and a net pension asset of £194m (FY2021: £413m), principally relating to the Smiths Industries Pension Scheme ('SIPS'), which arises from the rights of the employers to recover the surplus at the end of the life of the scheme.

The recognition of this surplus is a significant judgement. There is judgement required in determining whether an unconditional right of refund exists based on the provisions of the relevant trust deed and rules. Having taken legal advice with regard to the rights of the Group under the relevant Trust deed and rules, it has been determined that the surplus is recoverable by the Group and therefore can be recognised. In particular, in the ordinary course of business, the trustees of the scheme do not have a unilateral power to terminate and wind-up the scheme or augment benefits. If the pension scheme was wound up while it still had members, the scheme would need to buy out the benefits of all members. The buyout would cost significantly more than the carrying value of the scheme liabilities within these financial statements which are calculated in accordance with IAS 19: Employee benefits.

Capitalisation of development costs

Expenditure incurred in the development of major new products is capitalised as internally generated intangible assets only when it has been judged that strict criteria are met, specifically in relation to the products' technical feasibility and commercial viability (the ability to generate probable future economic benefits).

The assessment of technical feasibility and future commercial viability of development projects requires significant judgement and the use of assumptions. Key judgements made in the assessment of future commercial viability include:

- Scope of work to achieve regulatory clearance (where required) – including the level of testing evidence and documentation;
- Competitor activity – including the impact of potential competitor product launches on the market place and customer demand; and
- Launch timeline – including time and resource required to establish and support the commercial launch of a new product.

Taxation

As stated in the previous section 'Sources of estimation uncertainty', the Group has recognised deferred tax assets of £103m (FY2021: £144m) relating to losses and £69m (FY2021: £65m) relating to the John Crane, Inc. and Titeflex Corporation litigation provisions. The decision to recognise deferred tax assets requires judgement in determining whether the Group will be able to utilise historical tax losses in future periods. It has been concluded that there are sufficient taxable profits in future periods to support recognition.

The Group has also applied judgement in the decisions made to recognise provisions against uncertain tax positions; please see note 6 for further details.

Presentation of headline profits and organic growth

In order to provide users of the accounts with a clear and consistent presentation of the performance of the Group's ongoing trading activity, the income statement is presented in a three-column format with 'headline' profits shown separately from non-headline items. In addition, the Group reports organic growth rates for sales and profit measures.

See note 1 for disclosures of headline operating profit and note 29 for more information about the alternative performance measures ('APMs') used by the Group.

Judgement is required in determining which items should be included as non-headline. The amortisation/impairment of acquired intangibles, legacy liabilities, material one-off items and certain re-measurements are included in a separate column of the income statement. See note 3 for a breakdown of the items excluded from headline profit.

Calculating organic growth also requires judgement. Organic growth adjusts the movement in headline performance to exclude the impact of foreign exchange, restructuring costs and acquisitions. This definition of organic growth is the same as that used for underlying growth in previous accounting periods.

Significant accounting policies

Basis of consolidation

The Group's consolidated accounts include the financial statements of Smiths Group plc (the 'Company') and all entities controlled by the Company (its subsidiaries). A list of the subsidiaries of Smiths Group plc is provided on pages 180 to 186.

The Company controls an entity when it (i) has power over the entity; (ii) is exposed or has rights to variable returns from its involvement with the entity; and (iii) has the ability to affect those returns through its power over the entity. The Group reassesses whether or not it controls a subsidiary if facts and circumstances indicate that there are changes to one or more of these three elements of control. Subsidiaries are fully consolidated from the date on which control is obtained by the Company to the date that control ceases.

Where the Group loses control of a subsidiary, the assets and liabilities are derecognised along with any related non-controlling interest and other components of equity. Any resulting gain or loss is recognised in the income statement. Any interest retained in the former subsidiary is measured at fair value when control is lost.

The non-controlling interests in the Group balance sheet represent the share of net assets of subsidiary undertakings held outside the Group. The movement in the year comprises the profit attributable to such interests together with any dividends paid, movements in respect of corporate transactions and related exchange differences.

Interests in associates are accounted for using the equity method. They are initially recognised at cost, which includes transaction costs. Subsequent to initial recognition, the Group financial statements include the Group's share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence ceases.

All intercompany transactions, balances, and gains and losses on transactions between Group companies are eliminated on consolidation.

Foreign currencies

The Company's presentational currency and functional currency is sterling. The financial position of all subsidiaries and associates that have a functional currency different from sterling are translated into sterling at the rate of exchange at the date of that balance sheet, and the income and expenses are translated at average exchange rates for the period. All resulting foreign exchange rate movements are recognised as a separate component of equity.

On consolidation, foreign exchange rate movements 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. When a foreign operation is sold, the cumulative amount of such foreign exchange rate movements is recognised in the income statement as part of the gain or loss on sale.

Foreign exchange rate movements arising on transactions are recognised in the income statement. Those arising on trading are taken to operating profit; those arising on borrowings are classified as finance income or cost.

Revenue

Revenue is measured at the fair value of the consideration received, net of trade discounts (including distributor rebates) and sales taxes. Revenue is discounted only where the impact of discounting is material.

When the Group enters into complex contracts with multiple, separately identifiable components, the terms of the contract are reviewed to determine whether or not the elements of the contract should be accounted for separately. If a contract is being split into multiple components, the contract revenue is allocated to the different components at the start of the contract. The basis of allocation depends on the substance of the contract. The Group considers relative stand-alone selling prices, contractual prices and relative cost when allocating revenue.

The Group has identified the following different types of revenue:

(i) Sale of goods recognised at a point in time – generic products manufactured by Smiths

Generic products are defined as either:

- Products that are not specific to any particular customer;
- Products that may initially be specific to a customer but can be reconfigured at minimal cost, i.e. retaining a margin, for sale to an alternative customer; or

- Products that are specific to a customer but are manufactured at Smiths risk, i.e. we have no right to payment of costs plus margin if the customer refuses to take control of the goods.

For established products with simple installation requirements, revenue is recognised when control of the product is passed to the customer. The point in time that control passes is defined in accordance with the agreed shipping terms and is determined on a case by case basis. The time of despatch or delivery of the goods to the customer is normally the point at which invoicing occurs. However for some generic products, revenue is recognised when the overall performance obligation has been completed, which is often after the customer has completed its acceptance procedures and has assumed control.

Products that are sold under multiple element arrangements, i.e. contracts involving a combination of products and services, are bundled into a single performance obligation unless the customer can benefit from the goods or services either on their own, or together with other resources that are readily available to the customer and are distinct within the context of the contract.

For contracts that pass control of the product to the customer only on completion of installation services, revenue is recognised upon completion of the installation.

An obligation to replace or repair faulty products under the standard warranty terms is recognised as a provision. If the contract includes terms that either extend the warranty beyond the standard term or imply that maintenance is provided to keep the product working, these are service warranties and revenue is deferred to cover the performance obligation in an amount equivalent to the stand-alone selling price of that service.

(ii) Sale of goods recognised over time – customer-specific products where the contractual terms include rights to payment for work performed to date

Customer-specific products are defined as being:

- Products that cannot be reconfigured economically such that it remains profitable to sell to another customer;
- Products that cannot be sold to another customer due to contractual restrictions; and
- Products that allow Smiths to charge for the work performed to date in an amount that represents the costs incurred to date plus a margin, should the customer refuse to take control of the goods.

For contracts that meet the terms listed above, revenue is recognised over the period that the Group is engaged in the manufacture of the product, calculated using the input method based on the amount of costs incurred to date compared to the overall costs of the contract. This is considered to be a faithful depiction of the transfer of the goods to the customer as the costs incurred, total expected costs and total order value are known. The time of despatch or delivery of the goods to the customer is normally the point at which invoicing occurs.

An obligation to provide a refund for faulty products under the standard warranty terms is recognised as a provision. If the contract includes terms that either extend the warranty beyond the standard term or imply that maintenance is provided to keep the product working, these are service warranties and revenue is deferred to cover the performance obligation in an amount equivalent to the stand-alone selling price of that service.

(iii) Services recognised over time – services relating to the installation, repair and ongoing maintenance of equipment

Services include installation, commissioning, testing, training, software hosting and maintenance, product repairs and contracts undertaking extended warranty services.

For complex installations where the supply of services cannot be separated from the supply of product, revenue is recognised upon acceptance of the combined performance obligation (see Sale of goods (i) above).

For services that can be accounted for as a separate performance obligation, revenue is recognised over time, assessed on the basis of the actual service provided as a proportion of the total services to be provided.

Depending on the nature of the contract, revenue is recognised as follows:

- Installation, commissioning and testing services (when neither linked to the supply of product nor subject to acceptance) are recognised rateably as the services are provided;
- Training services are recognised on completion of the training course;
- Software hosting and maintenance services are recognised rateably over the life of the contract;
- Product repair services, where the product is returned to Smiths premises for remedial action, are recognised when the product is returned to the customer and they regain control of the asset;
- On-site ad hoc product repair services are recognised rateably as the services are performed;
- Long-term product repair and maintenance contracts are recognised rateably over the contract term; and
- Extended service warranties are recognised rateably over the contract term.

Invoicing for services depends on the nature of the service provided with some services charged in advance and others in arrears.

Where contracts are accounted for under the revenue recognised over time basis, the proportion of costs incurred is used to determine the percentage of contract completion.

Contracts for the construction of substantial assets, which normally last in excess of one year, are accounted for under the revenue recognised over time basis, using an input method.

For fixed-price contracts, revenue is recognised based upon an assessment of the amount of cost incurred under the contract, compared to the total expected costs that will be incurred under the contract. This calculation is applied cumulatively with any over/under recognition being adjusted in the current period.

For cost-plus contracts, revenue is recognised based upon costs incurred to date plus any agreed margin.

For both fixed-price and cost-plus contracts, invoicing is normally based on a schedule with milestone payments.

Contract costs

The Group has taken the practical expedient of not capitalising contract costs as they are expected to be expensed within one year from the date of signing.

Leases

The Group recognises right of use assets at the commencement date of the lease. Right of use assets are measured at cost including the amount of lease liabilities recognised and initial direct costs incurred, less any incentives granted by the lessor. Right of use assets are depreciated over the shorter of the lease term and the useful life of the right of use assets, unless there is a transfer of ownership or purchase option which is reasonably certain to be exercised at the end of the lease term, in which case depreciation is charged over the useful life of the underlying asset. Right of use assets are subject to impairment.

Leases of buildings typically have lease terms between 1 and 6 years, while plant and machinery generally have lease terms between 1 and 3 years. The Group also has certain leases of machinery with lease terms of 12 months or less and leases of office equipment with low value (typically below £5,000). The Group applies the 'short-term lease' and 'lease of low-value assets' recognition exemptions for these leases and recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

Taxation

The charge for taxation is based on profits for the year and takes into account taxation deferred because of temporary differences between the treatment of certain items for taxation and accounting purposes.

Current income tax assets and liabilities are measured at the amount expected to be recovered from or paid to taxation authorities. Tax benefits are not recognised unless it is likely that the tax positions are sustainable. Tax positions taken are then reviewed to assess whether a provision should be made based on prevailing circumstances. Tax provisions are included in current tax liabilities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted, at the reporting date in the countries where the Group operates and generates taxable income.

The Group operates and is subject to taxation in many countries. Tax legislation is different in each country, is often complex and is subject to interpretation by management and government authorities. These matters of judgement give rise to the need to create provisions for uncertain tax positions which are recognised when it is considered more likely than not that there will be a future outflow of funds to a taxing authority. Provisions are made against individual exposures and take into account the specific circumstances of each case, including the strength of technical arguments, recent case law decisions or rulings on similar issues and relevant external advice.

The amounts are measured using one of the following methods, depending on which of the methods the Directors expect will better reflect the amount the Group will pay to the tax authority:

- The single best estimate method is used where there is a single outcome that is more likely than not to occur. This will happen, for example, where the tax outcome is binary or the range of possible outcomes is very limited;
- Alternatively, a probability weighted expected value is used where, on the balance of probabilities, there will be a payment to the tax authority but there are a number of possible outcomes. In this case, a probability is assigned to each of the outcomes and the amount provided is the sum of these risk-weighted amounts. In assessing provisions against uncertain tax positions, management uses in-house tax experts, professional firms and previous experience of the taxing authority to evaluate the risk.

Deferred tax is provided in full using the balance sheet liability method. A deferred tax asset is recognised where it is probable that future taxable income will be sufficient to utilise the available relief. Tax is charged or credited to the income statement except when it relates to items charged or credited directly to equity, in which case the tax is also dealt with in equity.

Deferred tax is provided on temporary differences arising on investments in subsidiaries and associates, except where the timing of the reversal of the temporary differences is controlled by the Company and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax liabilities and assets are not discounted.

Employee benefits

Share-based compensation

The fair value of the shares or share options granted is recognised as an expense over the vesting period to reflect the value of the employee services received. The fair value of options granted, excluding the impact of any non-market vesting conditions, is calculated using established option pricing models, principally binomial models. The probability of meeting non-market vesting conditions, which include profitability targets, is used to estimate the number of share options which are likely to vest.

For cash-settled share-based payment, a liability is recognised based on the fair value of the payment earned by the balance sheet date. For equity-settled share-based payment, the corresponding credit is recognised directly in reserves.

Pension obligations and post-retirement benefits

Pensions and similar benefits (principally healthcare) are accounted for under IAS 19. The retirement benefit obligation in respect of the defined benefit plans is the liability (the present value of all expected future obligations) less the fair value of the plan assets.

The income statement expense is allocated between current service costs, reflecting the increase in liability due to any benefit accrued by employees in the current period, any past service costs/credits and settlement losses or gains which are recognised immediately, and the scheme administration costs.

Actuarial gains and losses are recognised in the statement of comprehensive income in the year in which they arise. These comprise the impact on the liabilities of changes in demographic and financial assumptions compared with the start of the year, actual experience being different to assumptions and the return on plan assets being above or below the amount included in the net pension interest cost.

Payments to defined contribution schemes are charged as an income statement expense as they fall due.

Intangible assets

Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of the identifiable net assets of the acquired subsidiary at the date of acquisition.

The goodwill arising from acquisitions of subsidiaries after 1 August 1998 is included in intangible assets, tested annually for impairment and carried at cost less accumulated impairment losses. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold. The goodwill arising from acquisitions of subsidiaries before 1 August 1998 was set against reserves in the year of acquisition.

ACCOUNTING POLICIES

Goodwill is tested for impairment at least annually. Should the test indicate that the net realisable value of the CGU is less than current carrying value, an impairment loss will be recognised immediately in the income statement. Subsequent reversals of impairment losses for goodwill are not recognised.

Research and development

Expenditure on research and development is charged to the income statement in the year in which it is incurred with the exception of:

- Amounts recoverable from third parties; and
- Expenditure incurred in respect of the development of major new products where the outcome of those projects is assessed as being reasonably certain as regards viability and technical feasibility. Such expenditure is capitalised and amortised over the estimated period of sale for each product, commencing in the year that the product is ready for sale. Amortisation is charged straight line or based on the units produced, depending on the nature of the product and the availability of reliable estimates of production volumes.

The cost of development projects which are expected to take a substantial period of time to complete includes attributable borrowing costs.

Intangible assets acquired in business combinations

The identifiable net assets acquired as a result of a business combination may include intangible assets other than goodwill. Any such intangible assets are amortised straight line over their expected useful lives as follows:

Patents, licences and trademarks	up to 20 years
Technology	up to 13 years
Customer relationships	up to 11 years

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

Software, patents and intellectual property

The estimated useful lives are as follows:

Software	up to 7 years
Patents and intellectual property	shorter of the economic life and the period the right is legally enforceable

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

Property, plant and equipment

Property, plant and equipment are stated at historical cost less accumulated depreciation and any recognised impairment losses.

Land is not depreciated. Depreciation is provided on other assets estimated to write off the depreciable amount of relevant assets by equal annual instalments over their estimated useful lives. In general, the rates used are:

Freehold and long leasehold buildings	2% per annum
Short leasehold property	over the period of the lease
Plant, machinery, etc.	10% to 20% per annum
Fixtures, fittings, tools and other equipment	10% to 33% per annum

The cost of any assets which are expected to take a substantial period of time to complete includes attributable borrowing costs.

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined using 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 (based on normal operating capacity). The cost of items of inventory which take a substantial period of time to complete includes attributable borrowing costs.

The net realisable value of inventories is the estimated selling price in the ordinary course of business, less applicable variable selling expenses. Provisions are made for any slow-moving, obsolete or defective inventories.

Trade and other receivables

Trade receivables and contract assets are initially recognised at fair value and subsequently measured at amortised cost, less any appropriate provision for expected credit losses.

A provision for expected credit losses is established when there is objective evidence that it will not be possible to collect all amounts due according to the original payment terms. Expected credit losses are determined using historical write-offs as a basis, with a default risk multiplier applied to reflect country risk premium. The Group applies the IFRS 9 simplified lifetime expected credit loss approach for trade receivables and contract assets which do not contain a significant financing component.

Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. Where the Group expects some or all of a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain.

Provisions for warranties and product liability, disposal indemnities, restructuring costs, property dilapidations and legal claims are recognised when: the Company has a legal or constructive obligation as a result of a past event; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. Provisions are not recognised for future operating losses.

Provisions are discounted where the time value of money is material.

Where there is a number of similar obligations, for example where a warranty has been given, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Businesses held for sale

Businesses classified as held for sale are measured at the lower of carrying amount and fair value less costs to sell. Impairment losses on initial classification as held for sale and gains or losses on subsequent remeasurements are included in the income statement. No depreciation is charged on assets and businesses classified as held for sale.

Businesses are classified as held for sale if their carrying amount will be settled principally through a sale rather than through continuing use and the following criteria are met:

- The business must be a separate major line of business, available for immediate sale in its present condition;
- Management is committed to the plan to sell the business and an active programme to locate a buyer and complete the plan must have been initiated;
- The disposal group must be actively marketed for sale at a price that is reasonable in relation to its current fair value;
- Shareholder and regulatory approval is highly probable and the plan is unlikely to be significantly changed or withdrawn; and
- Sale is expected to be completed within 12 months of the balance sheet date.

The assets and liabilities of businesses held for sale are presented as separate lines on the balance sheet.

Discontinued operations

A discontinued operation is either:

- 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, has been abandoned or meets the criteria to be classified as held for sale; or
- A business acquired solely for the purpose of selling it.

Discontinued operations are presented on the income statement as a separate line and are shown net of tax.

In accordance with IAS 21, gains and losses on intra-group monetary assets and liabilities are not eliminated. Therefore foreign exchange rate movements on intercompany loans with discontinued operations are presented on the income statement as non-headline finance cost items.

Cash and cash equivalents

Cash and cash equivalents include cash at bank and in hand and highly liquid interest-bearing securities with maturities of three months or less.

In the cash-flow statement, cash and cash equivalents are shown net of bank overdrafts, which are included as current borrowings in liabilities on the balance sheet.

Financial assets

The classification of financial assets depends on the purpose for which the assets were acquired. Management determines the classification of an asset at initial recognition and re-evaluates the designation at each reporting date. Financial assets are classified as: measured at amortised cost, fair value through other comprehensive income or fair value through profit and loss.

Financial assets primarily include trade receivables, cash and cash equivalents (comprising cash at bank, money market funds, and short-term deposits), short-term investments, derivatives (foreign exchange contracts and interest rate derivatives) and unlisted investments.

- Trade receivables are classified either as 'held to collect' and measured at amortised cost or as 'held to collect and sell' and measured at fair value through other comprehensive income (FVOCI). The Group may sell trade receivables due from certain customers before the due date. Any trade receivables from such customers that are not sold at the reporting date are classified as 'held to collect and sell';
- Cash and cash equivalents (consisting of balances with banks and other financial institutions, money-market funds and short-term deposits) and short-term investments are subject to low market risk. Cash balances and short-term investments are measured at amortised cost. Money market funds and short-term deposits are measured at fair value through profit and loss (FVPL);
- Derivatives are measured at FVPL;
- Listed and unlisted investments are measured at FVOCI; and
- Deferred contingent consideration are measured at FVPL.

Financial assets are derecognised when the right to receive cash-flows from the assets has expired, or has been transferred, and the Group has transferred substantially all of the risks and rewards of ownership. When securities classified as available for sale are sold or impaired, the accumulated fair value adjustments previously taken to reserves are included in the income statement.

Financial assets are classified as current if they are expected to be realised within 12 months of the balance sheet date.

Financial liabilities

Borrowings are initially recognised at the fair value of the proceeds, net of related transaction costs. These transaction costs, and any discount or premium on issue, are subsequently amortised under the effective interest rate method through the income statement as interest over the life of the loan and added to the liability disclosed in the balance sheet. Related accrued interest is included in the borrowings figure.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least one year after the balance sheet date.

Derivative financial instruments and hedging activities

The Group uses derivative financial instruments to hedge its exposures to foreign exchange and interest rates arising from its operating and financing activities.

Derivative financial instruments are initially recognised at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value. The method of recognising any resulting gain or loss depends on whether the derivative financial instrument is designated as a hedging instrument and, if so, the nature of the item being hedged.

Where derivative financial instruments are designated into hedging relationships, the Group formally documents the following:

- the risk management objective and strategy for entering the hedge;
- the nature of the risks being hedged and the economic relationship between the hedged item and the hedging instrument; and
- whether the change in cash-flows of the hedged item and hedging instrument are expected to offset each other.

Changes in the fair value of any derivative financial instruments that do not qualify for hedge accounting are recognised immediately in the income statement.

Fair value hedge
The Group uses derivative financial instruments to convert part of its fixed rate debt to floating rate in order to hedge the risks arising from its external borrowings.

The Group designates these as fair value hedges of interest rate risk. Changes in the hedging instrument are recorded in the income statement, together with any changes in the fair values of the hedged assets or liabilities that are attributable to the hedged risk to the extent that the hedge is effective. Gains or losses relating to any ineffectiveness are immediately recognised in the income statement.

Cash-flow hedge
Cash-flow hedging is used by the Group to hedge certain exposures to variability in future cash-flows.

The effective portions of changes in the fair values of derivatives that are designated and qualify as cash-flow hedges are recognised in equity. The gain or loss relating to any ineffective portion is recognised immediately in the income statement. Amounts accumulated in the hedge reserve are recycled in the income statement in the periods when the hedged items will affect profit or loss (for example, when the forecast sale that is hedged takes place).

If a forecast transaction that is hedged results in the recognition of a non-financial asset (for example, inventory) or a liability, the gains and losses previously deferred in the hedge reserve are transferred from the reserve and included in the initial measurement of the cost of the asset or liability. When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in the hedge reserve at that time remains in the reserve and is recognised when the forecast transaction is ultimately recognised in the income statement.

When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in other comprehensive income is immediately transferred to the income statement.

Net investment hedge
Hedges of net investments in foreign operations are accounted for similarly to cash-flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in other comprehensive income; the gain or loss relating to any ineffective portion is recognised immediately in the income statement. When a foreign operation is disposed of, gains and losses accumulated in equity related to that operation are included in the income statement for that period.

Fair value of financial assets and liabilities
The fair values of financial assets and financial liabilities are the amounts at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

'IFRS 13: Fair value measurement' requires fair value measurements to be classified according to the following hierarchy:

- Level 1 – quoted prices in active markets for identical assets or liabilities;
- Level 2 – valuations in which all inputs are observable either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3 – valuations in which one or more inputs that are significant to the resulting value are not based on observable market data.

See note 21 for information on the methods which the Group uses to estimate the fair values of its financial instruments.

Dividends
Dividends are recognised as a liability in the period in which they are authorised. The interim dividend is recognised when it is paid and the final dividend is recognised when it has been approved by shareholders at the Annual General Meeting.

New accounting standards effective 2022
No new accounting standards have been adopted in the financial year. The accounting policies adopted in the preparation of these consolidated financial statements are consistent with those followed in the previous financial year.

New standards and interpretations not yet adopted
No other new standards, new interpretations or amendments to standards or interpretations have been published which are expected to have a significant impact on the Group's financial statements.

Parent Company
The ultimate Parent Company of the Group is Smiths Group plc, a company incorporated in England and Wales and listed on the London Stock Exchange.

The accounts of the Parent Company, Smiths Group plc, have been prepared in accordance with the Companies Act 2006 and Financial Reporting Standard 101, 'Reduced Disclosure Framework'.

The Company accounts are presented in separate financial statements on pages 171 to 179. The principal subsidiaries of the Parent Company are listed in the above accounts.

NOTES TO THE ACCOUNTS

1 Segment information

Analysis by operating segment

The Group is organised into four divisions: John Crane, Smiths Detection, Flex-Tek and Smiths Interconnect. These divisions design, manufacture and support the following products:

- **John Crane** – mechanical seals, seal support systems, power transmission couplings and specialised filtration systems;
- **Smiths Detection** – sensors and systems that detect and identify explosives, narcotics, weapons, chemical agents, biohazards and contraband;
- **Flex-Tek** – engineered components, flexible hosing and rigid tubing that heat and move fluids and gases; and
- **Smiths Interconnect** – specialised electronic and radio frequency board-level and waveguide devices, connectors, cables, test sockets and sub-systems used in high-speed, high reliability, secure connectivity applications.

The position and performance of each division are reported at each Board meeting to the Board of Directors. This information is prepared using the same accounting policies as the consolidated financial information except that the Group uses headline operating profit to monitor the divisional results and operating assets to monitor the divisional position. See note 3 and note 29 for an explanation of which items are excluded from headline measures.

The sale of the Group's Smiths Medical business was completed on 6 January 2022 and the results of Smiths Medical are disclosed as a discontinued operation in note 27. Intersegment sales and transfers are charged at arm's length prices.

Segment trading performance

	Year ended 31 July 2022					
	John Crane £m	**Smiths Detection £m**	**Flex-Tek £m**	**Smiths Interconnect £m**	**Corporate costs £m**	**Total £m**
Revenue	901	655	647	363	–	2,566
Divisional headline operating profit	188	73	133	65	–	459
Corporate headline operating costs	–	–	–	–	(42)	(42)
Headline operating profit/(loss)	**188**	**73**	**133**	**65**	**(42)**	**417**
Items excluded from headline measures (note 3)	(21)	(37)	(27)	(1)	(214)	(300)
Operating profit/(loss)	**167**	**36**	**106**	**64**	**(256)**	**117**

	Year ended 31 July 2021					
	John Crane £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate costs £m	Total £m
Revenue	865	721	508	312	–	2,406
Divisional headline operating profit	187	99	97	35	–	418
Corporate headline operating costs	–	–	–	–	(46)	(46)
Headline operating profit/(loss)	**187**	**99**	**97**	**35**	**(46)**	**372**
Items excluded from headline measures (note 3)	(3)	(22)	(14)	(1)	(6)	(46)
Operating profit/(loss)	**184**	**77**	**83**	**34**	**(52)**	**326**

Operating profit is stated after charging (crediting) the following items:

	Year ended 31 July 2022					
	John Crane £m	**Smiths Detection £m**	**Flex-Tek £m**	**Smiths Interconnect £m**	**Corporate and non-headline £m**	**Total £m**
Depreciation – property, plant and equipment	15	10	7	5	1	38
Depreciation – right of use assets	15	7	5	2	1	30
Amortisation of capitalised development costs	–	3	–	–	–	3
Amortisation of software, patents and intellectual property	3	1	–	2	1	7
Amortisation of acquired intangibles	–	–	–	–	51	51
Share-based payment	3	2	2	1	4	12
Russia impairment charges and related closure costs	9	10	–	–	–	19
Transition services cost reimbursement	–	–	–	–	(7)	(7)

	Year ended 31 July 2021					
	John Crane £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate and non-headline £m	Total £m
Depreciation – property, plant and equipment	15	12	6	6	1	40
Depreciation – right of use assets	14	7	4	5	2	32
Amortisation of capitalised development costs	–	7	–	–	–	7
Amortisation of software, patents and intellectual property	3	1	–	2	1	7
Amortisation of acquired intangibles	–	–	–	–	53	53
Share-based payment	3	2	1	1	6	13
Strategic restructuring costs	4	6	–	10	1	21

The corporate and non-headline column comprises central information technology, human resources and headquarters costs and non-headline expenses (see note 3).

Segment assets and liabilities

Segment assets

31 July 2022	John Crane £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate and non-headline £m	Total £m
Property, plant, equipment, right of use assets, development projects, other intangibles and investments	167	127	84	54	399	831
Inventory, trade and other receivables	429	524	244	167	13	1,377
Segment assets	**596**	**651**	**328**	**221**	**412**	**2,208**

31 July 2021	John Crane £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate and non-headline £m	Total £m
Property, plant, equipment, right of use assets, development projects, other intangibles and investments	152	117	75	44	18	406
Inventory, trade and other receivables	356	417	160	127	10	1,070
Segment assets	**508**	**534**	**235**	**171**	**28**	**1,476**

Non-headline assets comprise receivables relating to non-headline items, acquisitions and disposals.

Segment liabilities

31 July 2022	John Crane £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate and non-headline £m	Total £m
Divisional liabilities	(155)	(347)	(91)	(85)	–	(678)
Corporate and non-headline liabilities	–	–	–	–	(385)	(385)
Segment liabilities	**(155)**	**(347)**	**(91)**	**(85)**	**(385)**	**(1,063)**

31 July 2021	John Crane £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate and non-headline £m	Total £m
Divisional liabilities	(137)	(276)	(66)	(61)	–	(540)
Corporate and non-headline liabilities	–	–	–	–	(336)	(336)
Segment liabilities	**(137)**	**(276)**	**(66)**	**(61)**	**(336)**	**(876)**

Non-headline liabilities comprise provisions and accruals relating to non-headline items, acquisitions and disposals.

Reconciliation of segment assets and liabilities to statutory assets and liabilities

	Assets		Liabilities	
	31 July 2022 £m	31 July 2021 £m	**31 July 2022 £m**	31 July 2021 £m
Segment assets and liabilities	**2,208**	**1,476**	**(1,063)**	**(876)**
Goodwill and acquired intangibles	1,501	1,423	–	–
Derivatives	4	77	(47)	(3)
Current and deferred tax	145	167	(111)	(122)
Retirement benefit assets and obligations	309	546	(115)	(128)
Cash and borrowings	1,056	405	(1,166)	(1,502)
Assets and liabilities held for sale	–	1,243	–	(283)
Statutory assets and liabilities	**5,223**	**5,337**	**(2,502)**	**(2,914)**

Segment capital expenditure

The capital expenditure on property, plant and equipment, capitalised development and other intangible assets for each division is:

	John Crane £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Corporate and non-headline £m	Total £m
Capital expenditure year ended 31 July 2022	24	23	11	12	1	**71**
Capital expenditure year ended 31 July 2021	19	23	9	9	2	**62**

Segment capital employed

Capital employed is a non-statutory measure of invested resources. It comprises statutory net assets adjusted to add goodwill recognised directly in reserves in respect of subsidiaries acquired before 1 August 1998 of £478m (FY2021: £787m) and eliminate retirement benefit assets and obligations and litigation provisions relating to non-headline items, both net of related tax, and net debt. See note 29 for a reconciliation of net assets to capital employed.

The 12-month rolling average capital employed by division, which Smiths uses to calculate divisional return on capital employed, is:

31 July 2022	John Crane £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Total £m
Average divisional capital employed	970	1,019	520	400	2,909
Average corporate capital employed					31
Average total capital employed – continuing operations					**2,940**

31 July 2021	John Crane £m	Smiths Detection £m	Flex-Tek £m	Smiths Interconnect £m	Total £m
Average divisional capital employed	937	1,018	449	395	2,799
Average corporate capital employed					31
Average total capital employed – continuing operations					**2,830**

Analysis of revenue

The revenue for the main product and service lines for each division is:

John Crane	Original Equipment £m	Aftermarket £m	Total £m
Revenue year ended 31 July 2022	279	622	**901**
Revenue year ended 31 July 2021	273	592	**865**

Smiths Detection	Aviation £m	Other security systems £m	Total £m
Revenue year ended 31 July 2022	467	188	**655**
Revenue year ended 31 July 2021	546	175	**721**

Flex-Tek	Aerospace £m	Industrials £m	Total £m
Revenue year ended 31 July 2022	116	531	**647**
Revenue year ended 31 July 2021	99	409	**508**

Smiths Interconnect	Components, connectors & subsystems £m
Revenue year ended 31 July 2022	**363**
Revenue year ended 31 July 2021	**312**

Aftermarket sales contributed £1,238m (FY2021: £1,198m) of Group revenue: John Crane aftermarket sales were £622m (FY2021: £592m); Smiths Detection aftermarket sales were £355m (FY2021: £331m); Flex-Tek aftermarket sales were £261m (FY2021: £270m); and Smiths Interconnect aftermarket sales were £nil (FY2021: £5m).

Divisional revenue is analysed by the Smiths Group key global markets as follows:

	General Industrial £m	Safety & Security £m	Energy £m	Aerospace £m	Total £m
John Crane					
Revenue year ended 31 July 2022	371	–	530	–	**901**
Revenue year ended 31 July 2021	355	–	510	–	**865**
Smiths Detection					
Revenue year ended 31 July 2022	–	655	–	–	**655**
Revenue year ended 31 July 2021	–	721	–	–	**721**
Flex Tek					
Revenue year ended 31 July 2022	531	–	–	116	**647**
Revenue year ended 31 July 2021	409	–	–	99	**508**
Smiths Interconnect					
Revenue year ended 31 July 2022	166	144	–	53	**363**
Revenue year ended 31 July 2021	139	128	–	45	**312**
Total					
Revenue year ended 31 July 2022	1,068	799	530	169	**2,566**
Revenue year ended 31 July 2021	903	849	510	144	**2,406**

The Group's statutory revenue is analysed as follows:

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Sale of goods recognised at a point in time	1,849	1,723
Sale of goods recognised over time	99	94
Services recognised over time	618	589
	2,566	**2,406**

Analysis by geographical areas

The Group's revenue by destination and non-current operating assets by location are shown below:

	Revenue		Intangible assets, right of use assets and property, plant and equipment	
	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m	**31 July 2022 £m**	31 July 2021 £m
Americas	1,423	1,244	1,324	1,195
Europe	480	522	498	512
Asia-Pacific	421	390	76	70
Rest of the World	242	250	39	41
	2,566	**2,406**	**1,937**	**1,818**

Revenue by destination attributable to the United Kingdom was £75m (FY2021: £69m). Other revenue found to be significant included, the United States of America, totalling £1,206m (FY2021: £1,047m), China (excluding Hong Kong) £132m (FY2021: £123m) and Germany £123m (FY2021: £130m). Revenue by destination has been selected as the basis for attributing revenue to geographical areas as this was the geographic attribution of revenue used by management to review business performance.

Non-current assets located in the United Kingdom total £108m (FY2021: £110m). Significant non-current assets held in the United States of America £1,260m (FY2021: £1,138m) and Germany £340m (FY2021: £350m).

2 Operating costs

The Group's operating costs for continuing operations are analysed as follows:

	Year ended 31 July 2022			Year ended 31 July 2021		
	Headline £m	Non-headline (note 3) £m	Total £m	Headline £m	Non-headline (note 3) £m	Total £m
Cost of sales – direct materials, labour, production and distribution overheads	1,605	–	1,605	1,491	–	1,491
Selling costs	200	–	200	188	–	188
Administrative expenses	351	300	651	355	46	401
Transition services cost reimbursement	(7)	–	(7)	–	–	–
Total	**2,149**	**300**	**2,449**	**2,034**	**46**	**2,080**

Following the sale of the Smiths Medical business, the Group has provided transition services to the Smiths Medical Group, which is disclosed above as transition services cost reimbursement.

Operating profit is stated after charging (crediting):

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Research and development expense	80	76
Depreciation of property, plant and equipment	38	40
Depreciation of right of use assets	30	32
Amortisation of intangible assets	61	67
Strategic restructuring programme and write-downs	–	21
Russia impairment and related closure costs (see note 11)	19	–
Transition services cost reimbursement	(7)	–

Research and development (R&D) cash costs were £107m (FY2021: £94m) comprising £80m (FY2021: £76m) of R&D expensed to the income statement, £12m (FY2021: £8m) of capitalised costs and £15m (FY2021: £10m) of customer funded R&D.

Administrative expenses include £3m (FY2021: £1m) in respect of lease payments for short-term and low-value leases which were not included within right of use assets and lease liabilities.

Auditors' remuneration

The following fees were paid or are payable to the Company's auditors, KPMG LLP and other firms in the KPMG network, for the year ended 31 July 2022.

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Audit services		
Fees payable to the Company's auditors for the audit of the Company's annual financial statements	2.8	2.3
Fees payable to the Company's auditors and its associates for other services:		
– the audit of the Company's subsidiaries	4.6	4.2
	7.4	**6.5**
All other services	0.8	0.9

Other services comprise audit-related assurance services £0.5m (FY2021: £0.4m) and fees for reporting accountant services in connection with a class 1 disposal £0.3m (FY2021: £0.5m). Audit-related assurance services include the review of the Interim Report. Total fees for non audit services comprise 11% (FY2021: 13%) of audit fees.

In the current year, the Group has additionally agreed £0.5m of additional fees with the Group auditors relating to the audit of the prior year financial statements.

3 Non-statutory profit measures

Headline profit measures

The Group has identified and defined a 'headline' measure of performance which is not impacted by material non-recurring items or items considered non-operational/trading in nature. This non-GAAP measure of profit is not intended to be a substitute for any IFRS measures of performance, but is a key measure used by management to understand and manage performance. See the disclosures on presentation of results in accounting policies for an explanation of the adjustments. The items excluded from 'headline' are referred to as 'non-headline' items.

Non-headline operating profit items

i. CONTINUING OPERATIONS

The non-headline items included in statutory operating profit for continuing operations were as follows:

	Notes	**Year ended 31 July 2022 £m**	Year ended 31 July 2021 £m
Post-acquisition integration costs and fair value adjustment unwind			
Unwind of acquisition balance sheet fair value uplift		(2)	(1)
Integration programme costs		–	(1)
Acquisition and disposal related transaction costs and provision releases			
Business acquisition/disposal costs		(5)	(1)
Legacy pension scheme arrangements			
Past service costs for benefit equalisation and improvements	8	(43)	(6)
Retirement benefit scheme settlement loss	8	(171)	–
Non-headline litigation provision movements			
Movement in provision held against Titeflex Corporation subrogation claims	23	(2)	13
Provision for John Crane, Inc. asbestos litigation	23	(7)	(6)
Cost recovery for John Crane, Inc. asbestos litigation		–	9
Other items			
Russia impairment charges and related closure costs	11	(19)	–
Amortisation of acquired intangible assets	10	(51)	(53)
Non-headline items in operating profit – continuing operations		**(300)**	**(46)**

Post-acquisition integration costs and fair value adjustment unwind

The impact of unwinding the acquisition balance sheet fair value adjustments required by IFRS 3 'Business combinations' was recognised as non-headline as the charge did not relate to trading activity. The £2m (FY2021: £1m) charge was due to the unwind of fair value uplifts on the acquisition of Royal Metal Products.

The £1m of integration programme costs in FY2021 principally related to defined projects for the integration of United Flexible into the existing Flex-Tek business. Integration programme costs included the direct costs of organisational change, site rationalisation and entity closure costs. The United Flexible integration programme concluded in the current year. Integration costs were recognised as non-headline items because they were considered material and bear no relation to the ongoing performance of the acquired businesses.

Acquisition and disposal related transaction costs and provision releases

The £5m of business acquisition/disposal costs (FY2021: £1m) principally relate to a provision for potential litigation expenses relating to an acquired business that were unknown at the time of the acquisition. These costs are recognised as non-headline items because they entirely relate to an acquisition transaction and are considered to be non-trading in nature.

Legacy pension scheme arrangements

The current year past service costs of £43m (FY2021: £6m) comprises the following:

- £19m of costs (FY2021: £6m) that were recognised in respect of the historic equalisation of retirement benefits for men and women (see note 8 for further details); and
- £24m of costs (FY2021: £nil) that were recognised following the TI Group Pension Scheme (TIGPS) executing an insurance buy-in policy. This reflects the expectation that the TIGPS trustee will use any surplus, remaining after the costs of buying-out and winding-up the scheme have been met, to improve member benefits (see note 8 for further details).

These past service costs are reported as non-headline as they are non-recurring and relate to legacy pension liabilities.

A £171m retirement benefit scheme settlement loss has been recognised in the current year (FY2021: £nil) following TIGPS executing an insurance buy-in policy for its remaining uninsured liabilities (see note 8 for further details). This item is reported as non-headline as it is non-recurring and relates to legacy pension liabilities.

Non-headline litigation provision movements

The following litigation costs and recoveries have been treated as non-headline items because the provisions were treated as non-headline when originally recognised and the subrogation claims and litigation relate to products that the Group no longer sells in these markets:

- The £2m charge (FY2021: £13m credit) recognised by Titeflex Corporation is principally in respect of an increase in the estimated cost of future claims. See note 23 for further details; and
- The £7m charge (FY2021: £6m charge) recognised for John Crane, Inc. asbestos litigation provision was principally due to an increased provision for adverse judgements and legal defence costs. The costs recovered via insurer settlements in FY2021 were £9m. See note 23 for further details.

NOTES TO THE ACCOUNTS

Other items

Following the decision in March 2022 to suspend sales into Russia the Group has recognised £19m (FY2021: £nil) of Russia impairment charges and related closure costs (see note 11 for further details). These expenses are recognised as non-headline items as they are both non-recurring and material in size.

Acquired intangible asset amortisation costs of £51m (FY2021: £53m) were recognised in the current year. This was considered to be a non-headline item on the basis that these charges resulted from acquisition accounting and were non-operational in nature.

Non-headline finance costs items

The non-headline items included in finance costs for continuing operations were as follows:

	Notes	**Year ended 31 July 2022 £m**	Year ended 31 July 2021 £m
Unwind of discount on provisions	23	(3)	(2)
Other finance income – retirement benefits	8	7	6
Fair value gain on investment in early stage business	14	1	–
Foreign exchange gain (loss) on intercompany loan with discontinued operations		22	(50)
Non-headline items in finance costs – continuing operations		**27**	**(46)**
Continuing operations – non-headline loss before taxation		**(273)**	**(92)**

The financing elements of non-headline legacy liabilities, including the £3m (FY2021: £2m) unwind of discount on provisions, were excluded from headline finance costs because these provisions were originally recognised as non-headline and this treatment has been maintained for ongoing costs and credits.

Other finance income comprises £7m (FY2021: £6m) of financing credits relating to retirement benefits. These were excluded from headline finance costs because the ongoing costs and credits are a legacy of previous employee pension arrangements.

Foreign exchange gains or losses on intercompany financing between Smiths Medical and the continuing Group were recognised on the face of the income statement as a non-headline item due to the classification of the Smiths Medical division as a discontinued operation. The £22m foreign exchange gain in continuing operations (FY2021: £50m loss) matches the foreign exchange loss in discontinued operations. This was excluded from headline net finance costs as these fair value movements were non-operational in nature and were purely a consequence of the presentational requirements for discontinued operations.

Non-headline taxation items

The non-headline items included in taxation for continuing operations were as follows:

	Notes	**Year ended 31 July 2022 £m**	Year ended 31 July 2021 £m
Tax credit on non-headline loss	6	19	9
(Increase)/decrease in unrecognised UK deferred tax asset	6	(5)	4
Non-headline items in taxation – continuing operations		**14**	**13**
Continuing operations – non-headline loss for the year		**(259)**	**(79)**

Movement in unrecognised UK deferred tax asset

These movements are reported as non-headline because the prior year charge was reported as non-headline. In FY2019 £36m of deferred tax was derecognised following the decision to separate Smiths Medical which reduces the Group's profitability in the UK. This year, following sale of Medical there is an additional non-headline charge for UK losses.

ii. DISCONTINUED OPERATIONS

The non-headline items for discontinued operations were as follows:

	Notes	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Non-headline operating profit items			
Medfusion documentation remediation costs		(33)	–
Impairment of investment in Ivenix, Inc convertible debt		(14)	–
Medical separation costs		–	(18)
Impairment of capitalised development costs and related assets		–	(61)
Non-headline finance costs items			
Foreign exchange (loss)/gain on intercompany loan with parent		(22)	50
Gain on sale of discontinued operation			
Gain on the sale of Smiths Medical to ICU Medical, Inc.	27	1,036	–
Non-headline taxation items			
Tax on non-headline loss	27	6	23
Non-headline items in profit from discontinued operations		**973**	**(6)**
Profit for the year – non-headline items for continuing and discontinued operations		**714**	**(85)**

In the current year Smiths Medical recognised a provision of £33m against the expected costs of the remediation actions required to address each of the observations and discussion items contained in the US Food and Drug Administration (FDA) 'for-cause' audit findings on the Medfusion product range.

In the current period a decision was taken by Smiths Medical to exit their commercial agreement with Ivenix, Inc. These circumstances have resulted in a change in strategy and have triggered an indicator of impairment to the carrying value of the Smiths Medical investment in Ivenix, Inc. As this change in circumstances indicates that it is not currently probable that the investment will realise economic benefits, management have impaired the entire £14m value of Smiths Medical's Ivenix, Inc. investment.

In the prior year the £18m of Medical separation costs represented incremental costs incurred by the Group to separate Smiths Medical. This cost has been reported as non-headline as the full year effect of the transaction on the Group's financial statements is both material and non-recurring. In the current year separation and transaction costs incurred on the sale of the Smiths Medical business to ICU Medical, Inc have been included within the 'Gain on sale of discontinued operation' calculation (see note 27).

The £22m foreign exchange loss on intercompany loan with parent (FY2021: £50m gain) directly offsets the foreign exchange gain in continuing operations. This is excluded from headline net finance costs as these fair value movements are non-operational in nature and are purely a consequence of the presentational requirements for discontinued operations.

4 Net finance costs

	Notes	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Interest receivable		14	9
Interest payable:			
– bank loans and overdrafts, including associated fees		(12)	(7)
– other loans		(40)	(39)
– interest on leases		(3)	(3)
Interest payable		(55)	(49)
Headline net finance costs		**(41)**	**(40)**
Other financing gains/(losses):			
– valuation movements on fair value hedged debt		(32)	22
– valuation movements on fair value derivatives		33	(25)
– foreign exchange and ineffectiveness on net investment hedges		(2)	3
– retranslation of foreign currency bank balances		(1)	(3)
– other items including counterparty credit risk adjustments and non-hedge accounted derivatives		2	3
Other financing gains/(losses)		**–**	**–**
Non-headline finance cost items:			
Foreign exchange gain on intercompany loan with discontinued operations	3	22	(50)
Unwind of discount on provisions	3	(3)	(2)
Fair value gain on investment in early stage business	14	1	–
Net interest income on retirement benefit obligations	8	7	6
Non-headline finance cost items		**27**	**(46)**
Net finance costs		**(14)**	**(86)**

5 Earnings per share

Basic earnings per share are calculated by dividing the profit for the year attributable to equity shareholders of the Company by the average number of ordinary shares in issue during the year.

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Profit attributable to equity shareholders for the year:		
– continuing	11	156
– discontinued	1,022	128
Total	1,033	284
Average number of shares in issue during the year (note 24)	386,678,211	396,350,586
Statutory earnings per share total – basic	267.1p	71.7p
Statutory earnings per share total – diluted	266.0p	71.3p
Statutory earnings per share continuing operations – basic	2.8p	39.4p
Statutory earnings per share continuing operations – diluted	2.8p	39.1p

Diluted earnings per share are calculated by dividing the profit attributable to ordinary shareholders by 388,349,758 (FY2021: 398,576,502) ordinary shares, being the average number of ordinary shares in issue during the year adjusted by the dilutive effect of employee share schemes. No options (FY2021: nil) were excluded from this calculation because their effect was anti-dilutive.

A reconciliation of statutory and headline earnings per share is as follows:

	Year ended 31 July 2022			Year ended 31 July 2021		
	£m	**Basic EPS (p)**	**Diluted EPS (p)**	£m	Basic EPS (p)	Diluted EPS (p)
Total profit attributable to equity shareholders of the Parent Company	1,033	267.1	266.0	284	71.7	71.3
Exclude: Non-headline items (note 3)	(714)			85		
Headline earnings per share	319	82.5	82.1	369	93.1	92.6
Profit from continuing operations attributable to equity shareholders of the Parent Company	11	2.8	2.8	156	39.4	39.1
Exclude: Non-headline items (note 3)	259			79		
Headline earnings per share – continuing operations	270	69.8	69.5	235	59.3	59.0

6 Taxation

This note only provides information about corporate income taxes under IFRS. Smiths companies operate in over 50 countries across the world. They pay and collect many different taxes in addition to corporate income taxes including: payroll taxes; value added and sales taxes; property taxes; product-specific taxes; and environmental taxes. The costs associated with these other taxes are included in profit before tax.

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
The taxation charge in the consolidated income statement for the year comprises:		
Continuing operations		
– current income tax charge	68	71
– current tax adjustments in respect of prior periods	5	7
Current taxation	**73**	**78**
Deferred taxation	17	5
Total taxation expense – continuing operations	**90**	**83**
Analysed as:		
Headline taxation expense	104	96
Non-headline taxation credit	(14)	(13)
Total taxation expense in the consolidated income statement	**90**	**83**

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Tax on items charged/(credited) to equity		
Deferred tax:		
– retirement benefit schemes	–	6
– foreign exchange	–	(5)
– share-based payment	(1)	(1)
	(1)	**–**

The £nil (FY2021: £6m) charge to equity for retirement benefits related to UK retirement schemes.

Current taxation liabilities

	Current tax £m
At 31 July 2020	**(38)**
Foreign exchange gain	1
Charge to income statement	(78)
Tax paid	96
At 31 July 2021	**(19)**
Current tax receivable	75
Current tax payable within one year	(89)
Corporation tax payable after more than one year	(5)
At 31 July 2021	**(19)**
Foreign exchange gain	(4)
Charge to income statement	(73)
Tax paid	79
At 31 July 2022	**(17)**
Current tax receivable	50
Current tax payable within one year	(64)
Corporation tax payable after more than one year	(3)
At 31 July 2022	**(17)**

Taxation liabilities included provisions of £38m (FY2021: £34m), the majority of which related to the risk of challenge to the geographic allocation of profits by tax authorities.

In addition to the risks provided for, the Group faces a variety of other tax risks, which result from operating in a complex global environment, including the ongoing reform of both international and domestic tax rules, new and ongoing tax audits in the Group's larger markets and the challenge to fulfil ongoing tax compliance filing and transfer pricing obligations given the scale and diversity of the Group's global operations.

The Group anticipates that a number of tax audits are likely to conclude in the next 12 to 24 months. Due to the uncertainty associated with such tax items, it is possible that the conclusion of open tax matters may result in a final outcome that varies significantly from the amounts noted above.

Reconciliation of the tax charge

The headline tax charge for the year of £104m (FY2021: £96m) represented an effective rate of 27.6% (FY2021: 28.9%). The headline effective tax rate for the total Group including discontinued operations was 27.2% (FY2021: 27.1%). The tax charge on the profit for the year for continuing operations was different from the standard rate of corporation tax in the UK of 19% (FY2021: 19.0%). The difference is reconciled as follows:

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Profit before taxation	**103**	**240**
Notional taxation expense at UK corporate rate of 19.0% (FY2021: 19.0%)	20	46
Different tax rates on non-UK profits and losses	13	16
Non-deductible expenses and other charges	11	30
Tax credits and non-taxable income	(6)	(8)
Non-headline UK deferred tax asset recognition adjustment	5	(4)
Other adjustments to unrecognised deferred tax	10	(4)
Non-tax relievable loss on UK pensions schemes	41	–
Tax on Smiths Medical consolidation adjustments	2	8
Prior year true-up	(6)	(1)
Total taxation expense in the consolidated income statement	**90**	**83**
Comprising:		
Taxation on headline profit	104	96
Non-headline taxation items:		
– Tax on non-headline loss	(19)	(9)
– UK deferred tax asset recognition adjustment	5	(4)
Taxation on non-headline items	(14)	(13)
Total taxation expense in the consolidated income statement	**90**	**83**

The head office of Smiths Group is domiciled in the UK; so the tax charge has been reconciled to UK tax rates.

Deferred taxation assets/(liabilities)

	Property, plant, equipment and intangible assets £m	Employment benefits £m	Losses carried forward £m	Provisions £m	Other £m	Total £m
At 31 July 2020	**(74)**	**(66)**	**128**	**86**	**1**	**75**
Reallocations	11	(1)	(14)	2	2	–
Charge to income statement – continuing operations	4	(31)	27	(5)	–	(5)
Credit to equity	–	(6)	5	–	–	(1)
Foreign exchange rate movements	3	(1)	(2)	(5)	–	(5)
At 31 July 2021	**(56)**	**(105)**	**144**	**78**	**3**	**64**
Deferred tax assets	2	(113)	126	62	15	92
Deferred tax liabilities	(58)	8	18	16	(12)	(28)
At 31 July 2021	**(56)**	**(105)**	**144**	**78**	**3**	**64**
Reallocations	(15)	1	9	1	4	–
Charge to income statement – continuing operations	4	50	(54)	(10)	(7)	(17)
Credit to equity	–	3	–	–	(4)	(1)
Foreign exchange rate movements	(9)	–	4	10	–	5
At 31 July 2022	**(76)**	**(51)**	**103**	**79**	**(4)**	**51**
Deferred tax assets	(1)	(56)	76	65	11	95
Deferred tax liabilities	(75)	5	27	14	(15)	(44)
At 31 July 2022	**(76)**	**(51)**	**103**	**79**	**(4)**	**51**

Reallocations in FY2022 include £10m where attributes used to shelter PDCF assessments have been reallocated from losses to capital allowances, following the conclusion of the Group's PDCF audit with UK HMRC covering FY2015 to FY2020.

Of the amounts included within 'Other' in the table above as at 31 July 2022, liabilities relating to tax on unremitted earnings were £19m (FY2021: £14m). The aggregate amount of temporary differences associated with investments in subsidiaries for which deferred tax liabilities have not been recognised was immaterial.

The deferred tax asset relating to losses has been recognised on the basis of strong evidence of future taxable profits against which the unutilised tax losses can be relieved or because it is probable that they will be recovered against the reversal of deferred tax liabilities. Deferred tax relating to provisions includes £57m (FY2021: £54m) relating to John Crane Inc. litigation provision, and £12m (FY2021: £11m) relating to Titeflex Corporation litigation provision. See note 23 for additional information on provisions.

Unrecognised deferred tax

The Group has unrecognised deferred tax relating to losses amounting to £335m (FY2021: £107m).

The expiry date of operating losses carried forward is dependent upon the law of the various territories in which the losses arise. A summary of expiry dates for the unrecognised deferred tax on losses is set out below:

	2022 £m	**Expiry of losses**	2021 £m	Expiry of losses
Restricted losses – Asia	–	n/a	30	2022-2027
Unrestricted losses – operating losses	335	No expiry	77	No expiry
Total unrecognised deferred tax on losses	**335**		**107**	

Unrecognised deferred tax relating to losses has increased by £228m (FY2021: increased by £13m). Changes to unrecognised losses include an increase of £226m, mainly related to UK deferred tax on losses that were being recognised to offset the deferred tax liability related to the TI Pension surplus, now written off following the bulk annuity buy-in with Rothesay Life plc, other increases of £39m and a reduction of £37m related to the sale of Smiths Medical.

Sale of Smiths Medical

The sale of 100% of the share capital of the UK Smiths Medical holding company completed on the 6 January 2022. The profit on sale was exempt from tax under the Substantial Shareholding Exemption.

Developments in the Group tax position

In December 2021, the Organisation for Economic Co-operation and Development ('OECD') published rules relating to global minimum taxation – the so-called Pillar 2 rules, scheduled to apply from 2023, regarding the future taxation of large multinationals such as Smiths. The Group will continue to monitor the development and future implementation of these rules. However, at this time and as currently drafted, they are not expected to have a material impact on the Group.

7 Employees

	Year ended 31 July 2022			Year ended 31 July 2021		
	Continuing operations £m	Discontinued operations £m	Total £m	Continuing operations £m	Discontinued operations £m	Total £m
Staff costs during the period						
Wages and salaries	700	91	791	627	234	861
Social security	81	9	90	85	22	107
Share-based payment (note 9)	13	2	15	13	1	14
Pension costs (including defined contribution schemes) (note 8)	29	5	34	26	11	37
	823	**107**	**930**	**751**	**268**	**1,019**

The average number of persons employed, rounded to the nearest 50 employees, was:

	Year ended 31 July 2022	Year ended 31 July 2021
John Crane	6,050	5,950
Smiths Detection	3,100	3,000
Flex-Tek	3,300	3,000
Smiths Interconnect	2,500	2,300
Corporate (including central/shared IT services)	300	300
Continuing operations	**15,250**	**14,550**
Discontinued operations – Smiths Medical (in period to 6 January 2022)	6,700	7,500
Total	**21,950**	**22,050**

Key management

The key management of the Group comprises Smiths Group plc Board Directors and Executive Committee members. Their aggregate compensation is shown below. Details of Directors' remuneration are contained in the report of the Remuneration & People Committee on pages 75 to 88.

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Key management compensation		
Salaries and short-term employee benefits	10.3	12.8
Cost of retirement benefits	0.7	0.9
Cost of share-based incentive plans	4.7	3.9

No member of key management had any material interest during the period in a contract of significance (other than a service contract or a qualifying third-party indemnity provision) with the Company or any of its subsidiaries.

Options and awards held at the end of the period by key management in respect of the Company's share-based incentive plans were:

	Year ended 31 July 2022		Year ended 31 July 2021	
	Number of instruments '000	Weighted average exercise price	Number of instruments '000	Weighted average exercise price
SEP	–		169	
LTIP	1,411		1,645	
Restricted stock	8		82	
SAYE	16	£11.43	11	£10.11

Related party transactions

The only related party transactions in FY2022 were key management compensation (FY2021: key management compensation).

8 Retirement benefits

Smiths provides retirement benefits to employees in a number of countries. This includes defined benefit and defined contribution plans and, mainly in the United Kingdom (UK) and United States of America (US), post-retirement healthcare.

Defined contribution plans

The Group operates defined contribution plans across many countries. In the UK a defined contribution plan has been offered since the closure of the UK defined benefit pension plans. In the US a 401(k) defined contribution plan operates. The total expense recognised in the consolidated income statement in respect of all these plans was £34m (FY2021: £36m).

Defined benefit and post-retirement healthcare plans

The principal defined benefit pension plans are in the UK and in the US and these have been closed so that no future benefits are accrued.

For all schemes, pension costs are assessed in accordance with the advice of independent, professionally qualified actuaries. These valuations have been updated by independent qualified actuaries in order to assess the liabilities of the schemes as at 31 July 2022. Contributions to the schemes are made on the advice of the actuaries, in accordance with local funding requirements.

The changes in the present value of the net pension asset in the period were:

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
At beginning of period	**413**	**372**
Foreign exchange rate movements	–	5
Current service cost	(2)	(2)
Scheme administration costs	(4)	(5)
Past service cost, curtailments, settlements – continuing operations	(214)	(6)
Settlements – discontinued operations	(3)	–
Finance income – retirement benefits	7	6
Contributions by employer	9	30
Actuarial gain	3	13
Retirement benefit obligations disposed of with Smiths Medical (note 27)	5	–
Unrecognised assets due to surplus restriction	(20)	–
Net retirement benefit asset	**194**	**413**

The £413m net retirement benefit asset for FY2021 included £5m of pension obligations disclosed within liabilities held for sale.

UK pension schemes

Smiths funded UK pension schemes are subject to a statutory funding objective, as set out in UK pension legislation. Scheme trustees need to obtain regular actuarial valuations to assess the scheme against this funding objective. The trustees and sponsoring companies need to agree funding plans to improve the position of a scheme when it is below the acceptable funding level.

The UK Pensions Regulator has extensive powers to protect the benefits of members, promote good administration and reduce the risk of situations arising which may require compensation to be paid from the Pension Protection Fund. These include imposing a schedule of contributions or the calculation of the technical provisions, where a trustee and company fail to agree appropriate calculations.

Smiths Industries Pension Scheme ('SIPS')

This scheme was closed to future accrual effective 1 November 2009. SIPS provides index-linked (to applicable caps) pension benefits based on final earnings at date of closure. SIPS is governed by a corporate trustee (S.I. Pension Trustees Limited, a wholly owned subsidiary of Smiths Group plc). The board of trustee directors currently comprises four Company-nominated trustees and four member-nominated trustees, with an independent chairman selected by Smiths Group plc. Trustee directors are responsible for the management, administration, funding and investment strategy of the scheme.

The most recent actuarial valuation of this scheme has been performed using the Projected Unit Method as at 31 March 2020. The valuation showed a surplus of £34m on the Technical Provisions funding basis at the valuation date and the funding position has improved since then. As part of the valuation agreement, no contributions are currently being paid to SIPS and the Group's current expectation is that these contributions will not recommence (although there are circumstances relating to the Scheme's funding level in which contributions could be due to SIPS).

The duration of SIPS liabilities is around 20 years (FY2021: 23 years) for active deferred members, 20 years (FY2021: 22 years) for deferred members and 11 years (FY2021: 12 years) for pensioners and dependants.

Under the governing documentation of SIPS, any future surplus would be returnable to Smiths Group plc by refund, assuming gradual settlement of the liabilities over the lifetime of the scheme.

In SIPS, as part of ongoing data cleansing work being undertaken to prepare the scheme for a potential full buy-out in the future, it has been discovered that the method used in the early 1990s to equalise retirement ages between men and women in two of its smaller benefits sections was incorrect. An additional liability of £19m has been recognised as a past service cost to reflect the correction of this issue. A wider review is being undertaken to determine if equalisation was undertaken correctly in other sections of the Scheme. Should any issues arise from this review, any additional liability is expected to be accounted for at the point the legal investigations are completed and there is clarity on the legally effective dates that equalisation of retirement ages was implemented in respective sections.

TI Group Pension Scheme ('TIGPS')

This scheme was closed to future accrual effective 1 November 2009. TIGPS provides index-linked (to applicable caps) pension benefits based on final earnings at the date of closure. TIGPS is governed by a corporate trustee (TI Pension Trustee Limited, an independent company). The board of trustee directors comprises four Company-nominated trustees and four member-nominated trustees, with an independent trustee director selected by the trustee. The trustee is responsible for the management, administration, funding and investment strategy of the scheme.

In June 2022 the TIGPS trustee completed a deal to secure its remaining uninsured pension liabilities, by way of a bulk annuity buy-in with Rothesay Life plc. This means all of the scheme's liabilities are insured via seven buy-in policies. The final buy-in has been secured with an intention to fully buy-out the Scheme as soon as reasonably practical and within a period of four years. Consequently, the income statement recognises a settlement loss of £171m in relation to the buy-in. In terms agreed between the Group and the TIGPS trustee prior to the transaction, when TIGPS converts all of its buy-in policies to buy-out policies and subsequently winds-up, the trustee is expected to use any surplus remaining, after the costs of buying-out and winding-up the scheme have been met, to improve member benefits. A past service cost of £24m has been recognised for this in the income statement. The Group has no expectation of receiving a refund from the scheme and has placed an economic benefit value of zero on the TIGPS surplus from 10 June 2022.

As TIGPS currently retains the legal obligation to pay all scheme benefits, TIGPS liabilities remain part of the retirement benefit obligations on the balance sheet alongside the corresponding buy-in assets. These liabilities and assets will be de-recognised at the point the buy-in policies are converted to buy-outs and the legal obligation for payment of benefits is transferred to the relevant insurers.

The most recent actuarial valuation of this scheme has been performed using the Projected Unit Method as at 5 April 2020. The valuation showed a surplus of £22m on the Technical Provisions funding basis at the valuation date and the funding position has improved since then. Given TIGPS's circumstances, the Group's current expectation is that no further contributions to TIGPS will be required.

The duration of the TIGPS liabilities is around 21 years (FY2021: 23 years) for active deferred members, 19 years (FY2021: 21 years) for deferred members and 10 years (FY2021: 11 years) for pensioners and dependants.

US pension plans

The valuations of the principal US pension and post-retirement healthcare plans were performed using census data at 1 January 2022.

The pension plans were closed with effect from 30 April 2009 and benefits were calculated as at that date and are not revalued. Governance of the US pension plans is overseen by a Settlor Committee appointed by Smiths Group Services Corp, a wholly owned subsidiary of the Group.

The duration of the liabilities for the largest US plan is around 16 years (FY2021: 18 years) for active deferred members, 15 years (FY2021: 18 years) for deferred members and 10 years (FY2021: 12 years) for pensioners and dependants.

Risk management

In respect of uninsured liabilities, the pensions schemes are exposed to risks that:

- investment returns are below expectations, leaving the schemes with insufficient assets in future to pay all their pension obligations;
- members and dependants live longer than expected, increasing the value of the pensions which the schemes have to pay;
- inflation rates are higher than expected, causing amounts payable under index-linked pensions to be higher than expected; and
- increased contributions are required to meet funding targets if lower interest rates increase the current value of liabilities.

These risks are managed separately for each pension scheme. However, the Group has adopted a common approach of closing defined benefit schemes to cap members' entitlements and of supporting trustees in adopting investment strategies which aim to hedge the value of assets against changes in the value of liabilities caused by changes in interest and inflation rates.

Across SIPS and TIGPS, approximately 60% of all liabilities are now de-risked through 11 bulk annuities.

TIGPS

TIGPS has covered roughly 100% of liabilities with matching annuities, eliminating investment return, longevity, inflation and funding risks in respect of those liabilities.

SIPS

SIPS has covered roughly 30% of liabilities with matching annuities, eliminating investment return, longevity, inflation and funding risks in respect of those liabilities. It has also adopted a Liability Driven Investment (LDI) strategy to hedge interest and inflation risks of the scheme's uninsured liabilities by investment in gilts together with the use of gilt repurchase arrangements, total return swaps, inflation swaps and interest rate swaps. The strategy also takes into account the scheme's corporate bond investments.

The critical estimates and principal assumptions used in updating the valuations are set out below:

	2022 UK	**2022 US**	**2022 Other**	2021 UK	2021 US	2021 Other
Rate of increase in salaries	n/a	n/a	2.2%	n/a	n/a	2.5%
Rate of increase for active deferred members	4.0%	n/a	n/a	4.2%	n/a	n/a
Rate of increase in pensions in payment	3.4%	n/a	1.2%	3.3%	n/a	1.5%
Rate of increase in deferred pensions	3.4%	n/a	n/a	3.3%	n/a	n/a
Discount rate	3.5%	4.5%	1.1%	1.7%	2.7%	0.7%
Inflation rate	3.4%	n/a	1.3%	3.3%	n/a	1.5%
Healthcare cost increases	4.4%	n/a	n/a	4.4%	n/a	n/a

The assumptions used in calculating the costs and obligations of the Group's defined benefit pension plans are set by the Group after consultation with independent professionally qualified actuaries. The assumptions used are estimates chosen from a range of possible actuarial assumptions which, due to the timescale covered, may not necessarily occur in practice. For countries outside the UK and USA, assumptions are disclosed as a weighted average.

Inflation rate assumptions

The RPI inflation assumption of 3.4% has been derived using the Aon UK Government Gilt Prices Only Curve with an Inflation Risk Premium (IRP) of 0.2% p.a., whereas in previous years the Aon UK Government RPI Curve was used. It is estimated that the impact of this change in RPI methodology is to increase the RPI assumption by 0.1% at 31 July 2022 and this is expected to increase the balance sheet liabilities, for both SIPS and TIGPS, by 1.0% of DBO at 31 July 2022.

The Government's response to its consultation on RPI reform was published on 25 November 2020, and strongly implied that RPI will become aligned with CPI-H from 2030. No specific allowance (beyond anything already priced into markets) has been factored into the RPI assumptions for potential changes. The assumption for the long-term gap between RPI and CPI is 0.6% p.a. (FY2021:0.6%) reflecting the Group's view on the market pricing of this gap over the lifetime of the UK schemes' liabilities, i.e. 1.0% p.a. (FY2021: 1.0%) pre-2030 and 0.2% p.a. post-2030 (FY2021:0.1%).

Discount rate assumptions

The UK schemes use a discount rate based on the annualised yield on the Aon GBP Select AA Curve, using the expected cash-flows from a notional scheme with obligations of the same duration as that of the UK schemes. The US Plan uses a discount rate based on the annualised yield derived from Willis Towers Watson's RATE:Link (10th – 90th) model using the Plan's expected cash-flows.

Mortality assumptions

The mortality assumptions used in the principal UK schemes are based on the 'SAPS S3' birth year tables with relevant scaling factors based on the recent experience of the schemes. The assumption allows for future improvements in life expectancy in line with the 2021 CMI projections, with a smoothing factor of 7.0 and 'A' parameter of 0.5%/0.25% (SIPS/TIGPS) and blended to a long-term rate of 1.25%.

The mortality assumptions used in the principal US schemes are based on generational mortality using Pri-2012 sex-distinct, employee/non-disabled annuitant table, with a 2012 base year, projected forward generationally with the MP-2021 mortality scale. No explicit adjustment has been made to mortality assumptions in respect of COVID-19.

				UK schemes				US schemes
Expected further years of life	**Male 31 July 2022**	**Female 31 July 2022**	Male 31 July 2021	Female 31 July 2021	**Male 31 July 2022**	**Female 31 July 2022**	Male 31 July 2021	Female 31 July 2021
Member who retires next year at age 65	22	24	22	24	21	22	20	22
Member, currently 45, when they retire in 20 years' time	23	25	23	25	22	24	22	24

Sensitivity

Sensitivities in respect of the key assumptions used to measure the principal pension schemes as at 31 July 2022 are set out below. These sensitivities show the hypothetical impact of a change in each of the listed assumptions in isolation, with the exception of the sensitivity to inflation which incorporates the impact of certain correlating assumptions. In practice, such assumptions rarely change in isolation.

	Profit before tax for year ended 31 July 2022 £m	**Increase/ (decrease) in scheme assets 31 July 2022 £m**	**(Increase)/ decrease in scheme liabilities 31 July 2022 £m**	Profit before tax for year ended 31 July 2021 £m	Increase/ (decrease) in scheme assets 31 July 2021 £m	(Increase)/ decrease in scheme liabilities 31 July 2021 £m
Rate of mortality – 1 year increase in life expectancy	(2)	84	(135)	(2)	99	(209)
Rate of mortality – 1 year decrease in life expectancy	2	(84)	136	2	(97)	206
Rate of inflation – 0.25% increase	(1)	34	(69)	(1)	30	(98)
Discount rate – 0.25% increase	2	(49)	97	3	(38)	146
Market value of scheme assets – 2.5% increase	1	40	–	1	73	–

The effect on profit before tax reflects the impact of current service cost and net interest cost. The value of the scheme assets is affected by changes in mortality rates, inflation and discounting because they affect the carrying value of the insurance assets.

Asset valuation

The pension schemes hold assets in a variety of pooled funds, in which the underlying assets typically are invested in credit and cash assets. These funds are valued. The price of the funds is set by administrators/custodians employed by the investment managers and based on the value of the underlying assets held in the funds. Details of pricing methodology are set out within internal control reports provided for each fund. Prices are updated daily, weekly or monthly depending upon the frequency of the fund's dealing.

Bonds are valued using observable broker quotes. Gilt repurchase obligations are valued by the relevant manager, which derives the value using an industry recognised model with observable inputs.

Property is valued by specialists applying recognised property valuation methods incorporating current market data on rental yields and transaction prices.

Total return, interest and inflation swaps and forward FX contracts are bilateral agreements between counterparties and do not have observable market prices. These derivative contracts are valued using observable inputs.

Insured liabilities comprise annuity policies broadly matching the scheme obligation to identified groups of members. These assets are valued by an external qualified actuary at the actuarial valuation of the corresponding liability, reflecting this matching relationship.

The insurance policies are treated as qualifying insurance policies as none of the insurers are related parties of Smiths Group, and the proceeds of the policies can only be used to pay or fund employee benefits for the respective schemes, are not available to Smiths Group's creditors and cannot be paid to Smiths Group.

NOTES TO THE ACCOUNTS

Retirement benefit plan assets

	31 July 2022 – £m UK schemes	US schemes	Other countries	Total	31 July 2021 – £m UK schemes	US schemes	Other countries	Total
Cash and cash equivalents	90	1	1	92	71	1	–	72
Pooled funds:								
– Pooled equity	–	–	3	3	–	–	3	3
– Pooled Diversified Growth	–	–	15	15	–	–	19	19
– Pooled credit	379	–	–	379	420	–	–	420
Corporate bonds	412	167	–	579	791	192	–	983
Government bonds/LDI	498	57	3	558	1,298	79	3	1,380
Insured liabilities	1,649	–	–	1,649	1,462	–	–	1,462
Property	39	–	–	39	62	–	–	62
Other	–	–	–	–	–	–	5	5
Total market value	**3,067**	**225**	**22**	**3,314**	**4,104**	**272**	**30**	**4,406**

The assets are unquoted. Government bonds/LDI portfolios contain £960m (FY2021: £1,929m) of UK Government bonds (gilts), £476m (FY2021: £626m) of gilt repurchase obligations and £9m of interest and inflation swap assets (FY2021: £5m obligations).

The UK bond portfolios include forward FX contracts with a net value of £5m (FY2021: £1m). These are held to hedge against foreign currency risk in respect of overseas bonds.

The scheme assets do not include any property occupied by, or other assets used by, the Group.

Present value of funded scheme liabilities and assets for the main UK and US schemes

	31 July 2022 – £m SIPS	TIGPS	US schemes	31 July 2021 – £m SIPS	TIGPS	US schemes
Present value of funded scheme liabilities:						
– Active deferred members	(32)	(23)	(41)	(42)	(29)	(73)
– Deferred members	(561)	(442)	(109)	(810)	(632)	(119)
– Pensioners	(1,010)	(670)	(88)	(1,226)	(809)	(81)
Present value of funded scheme liabilities	**(1,603)**	**(1,135)**	**(238)**	**(2,078)**	**(1,470)**	**(273)**
Market value of scheme assets	1,912	1,155	225	2,410	1,684	272
Surplus restriction	–	(20)	–	–	–	–
Surplus/(deficit)	**309**	**–**	**(13)**	**332**	**214**	**(1)**

Net retirement benefit obligations

	31 July 2022 – £m UK schemes	US schemes	Other countries	Total	31 July 2021 – £m UK schemes	US schemes	Other countries	Total
Market value of scheme assets	3,067	225	22	3,314	4,104	272	30	4,406
Present value of funded scheme liabilities	(2,738)	(238)	(27)	(3,003)	(3,558)	(273)	(38)	(3,869)
Surplus restriction	(20)	–	–	(20)	–	–	–	–
Surplus/(deficit)	**309**	**(13)**	**(5)**	**291**	**546**	**(1)**	**(8)**	**537**
Unfunded pension plans	(43)	(7)	(40)	(90)	(54)	(7)	(55)	(116)
Post-retirement healthcare	(4)	(1)	(2)	(7)	(4)	(1)	(3)	(8)
Present value of unfunded obligations	**(47)**	**(8)**	**(42)**	**(97)**	**(58)**	**(8)**	**(58)**	**(124)**
Net pension asset/(liability)	**262**	**(21)**	**(47)**	**194**	**488**	**(9)**	**(66)**	**413**
Retirement benefit assets	309	–	–	309	546	–	–	546
Retirement benefit liabilities	(47)	(21)	(47)	(115)	(58)	(9)	(61)	(128)
Liabilities held for sale	–	–	–	–	–	–	(5)	(5)
Net pension asset/(liability)	**262**	**(21)**	**(47)**	**194**	**488**	**(9)**	**(66)**	**413**

Liabilities held for sale in FY2021 comprise £4m of unfunded pension plans and £1m deficit on defined benefit schemes within the Smiths Medical division.

Where any individual scheme shows a recoverable surplus under IAS 19, this is disclosed on the balance sheet as a retirement benefit asset. The IAS 19 surplus of any one scheme is not available to fund the IAS 19 deficit of another scheme. The retirement benefit asset disclosed arises from the rights of the employers to recover the surplus at the end of the life of the scheme i.e. when the last beneficiary's obligation has been met.

NOTES TO THE ACCOUNTS

Amounts recognised in the consolidated income statement

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Amounts charged to operating profit		
Current service cost	2	2
Past service costs – benefit equalisations	43	6
Settlement loss	171	–
Scheme administration costs	4	5
	220	**13**
The operating cost is charged as follows:		
Headline administrative expenses	6	7
Non-headline settlement loss	171	–
Non-headline administrative expenses	43	6
	220	**13**
Amounts credited to finance costs		
Non-headline other finance income – retirement benefits	**(7)**	**(6)**

Amounts recognised directly in the consolidated statement of comprehensive income

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Re-measurements of retirement defined benefit assets and liabilities		
Difference between interest credit and return on assets	(835)	(57)
Experience gains on scheme liabilities	(31)	44
Actuarial gains arising from changes in demographic assumptions	1	10
Actuarial gains/(losses) arising from changes in financial assumptions	868	16
Movement in surplus restriction	(20)	–
	(17)	**13**

Changes in present value of funded scheme assets

	31 July 2022 – £m				31 July 2021 – £m			
	UK schemes	US schemes	Other countries	Total	UK schemes	US schemes	Other countries	Total
At beginning of period	**4,104**	**272**	**30**	**4,406**	**4,240**	**311**	**31**	**4,582**
Interest on assets	70	8	1	79	58	7	1	66
Actuarial movement on scheme assets	(773)	(62)	–	(835)	(40)	(17)	–	(57)
Employer contributions	3	–	1	4	20	4	1	25
Scheme administration costs	(3)	(1)	–	(4)	(4)	(1)	–	(5)
Foreign exchange rate movements	–	33	–	33	–	(17)	–	(17)
Assets transferred on business disposal	–	–	(5)	(5)	–	–	–	–
Assets distributed on settlements	(180)	–	–	(180)	–	–	–	–
Curtailment gains/(losses)	–	(9)	–	(9)	–	–	–	–
Benefits paid	(154)	(16)	(5)	(175)	(170)	(15)	(3)	(188)
At end of period	**3,067**	**225**	**22**	**3,314**	**4,104**	**272**	**30**	**4,406**

Changes in present value of funded defined benefit obligations

	31 July 2022 – £m				31 July 2021 – £m			
	UK schemes	US schemes	Other countries	Total	UK schemes	US schemes	Other countries	Total
At beginning of period	**(3,558)**	**(273)**	**(38)**	**(3,869)**	**(3,724)**	**(314)**	**(40)**	**(4,078)**
Current service cost	–	–	–	–	–	–	(1)	(1)
Past service costs	(43)	–	–	(43)	(6)	–	–	(6)
Interest on obligations	(61)	(8)	(1)	(70)	(51)	(7)	(2)	(60)
Actuarial movement on liabilities	761	54	2	817	53	16	–	69
Foreign exchange rate movements	–	(33)	–	(33)	–	17	2	19
Liabilities transferred on business disposal	–	–	5	5	–	–	–	–
Curtailment gains/(losses)	–	6	–	6	–	–	–	–
Liabilities extinguished on settlements	9	–	–	9	–	–	–	–
Benefits paid	154	16	5	175	170	15	3	188
At end of period	**(2,738)**	**(238)**	**(27)**	**(3,003)**	**(3,558)**	**(273)**	**(38)**	**(3,869)**

NOTES TO THE ACCOUNTS

Changes in present value of unfunded defined benefit pensions and post-retirement healthcare plans

	Assets		Obligations	
	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m	**Year ended 31 July 2022 £m**	Year ended 31 July 2021 £m
At beginning of period	**–**	**–**	**(124)**	**(132)**
Current service cost	–	–	(1)	(1)
Interest on obligations	–	–	(2)	(1)
Actuarial movement	–	–	21	2
Employer contributions	5	5	–	–
Foreign exchange rate movements	–	–	–	3
Liabilities transferred on business disposal	–	–	4	–
Benefits paid	(5)	(5)	5	5
At end of period	**–**	**–**	**(97)**	**(124)**

Changes in the effect of the asset ceiling over the year

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Irrecoverable asset at beginning of period	**–**	**–**
Actuarial movement on scheme assets	(20)	–
At end of period	**(20)**	**–**

Cash contributions

Company contributions to the defined benefit pension plans and post-retirement healthcare plans totalled £9m (FY2021: £30m). This comprised regular contributions to funded schemes of £3m (FY2021: £12m) to SIPS, £nil (FY2021: £8m) to TIGPS, £nil (FY2021: £4m) to funded US schemes and contributions to other schemes of £1m (FY2021: £1m). In addition, £5m (FY2021: £5m) was spent on providing benefits under unfunded defined benefit pension and post-retirement healthcare plans.

In FY2023, cash contributions to the Group's schemes are expected to be up to £12m in total.

9 Employee share schemes

The Group operates share schemes and plans for the benefit of employees. The nature of the principal schemes and plans, including general conditions, is set out below:

Long-Term Incentive Plan (LTIP)

The LTIP is a share plan under which an award over a capped number of shares will vest after the end of a three-year performance period if performance conditions are met. LTIP awards are made to selected senior executives, including the Executive Directors.

LTIP performance conditions

Each performance condition has a threshold below which no shares vest and a maximum performance target at or above which the award vests in full. For performance between 'threshold' and 'maximum', awards vest on a straight-line sliding scale. The performance conditions are assessed separately; so performance on one condition does not affect the vesting of the other elements of the award. To the extent that the performance targets are not met over the three-year performance period, awards lapse. There is no re-testing of the performance conditions.

LTIP awards have performance conditions relating to organic revenue growth, growth in headline EPS, ROCE, free cash-flow and meeting ESG targets.

Smiths Excellence Plan (SEP)

The last Smiths Excellence plan (SEP) grant was issued in October 2019, vested on 31 July 2021 and exercised in October 2021. No further SEP awards have been made.

Restricted stock

Restricted stock is used by the Remuneration and People Committee, as a part of recruitment strategy, to make awards in recognition of incentive arrangements forfeited on leaving a previous employer. If an award is considered appropriate, the award will take account of relevant factors including the fair value of awards forfeited, any performance conditions attached, the likelihood of those conditions being met and the proportion of the vesting period remaining.

Save as you earn (SAYE)

The SAYE scheme is an HM Revenue & Customs approved all-employee savings-related share option scheme which is open to all UK employees. Participants enter into a contract to save a fixed amount per month of up to £500 in aggregate for three years and are granted an option over shares at a fixed option price, set at a discount to market price at the date of invitation to participate. The number of shares is determined by the monthly amount saved and the bonus paid on maturity of the savings contract. Options granted under the SAYE scheme are not subject to any performance conditions.

NOTES TO THE ACCOUNTS

	Long-term incentive plans	SEP	Restricted stock	Save as you earn scheme	Total	Weighted average exercise price
Ordinary shares under option/award ('000)						
31 July 2020	**3,937**	**1,295**	**131**	**1,207**	**6,570**	**£1.89**
Granted	2,143	358	11	139	2,651	£0.68
Exercised	(346)	(411)	(60)	(165)	(982)	£2.03
Lapsed	(819)	(391)	(18)	(96)	(1,324)	£0.75
31 July 2021	**4,915**	**851**	**64**	**1,085**	**6,915**	**£1.63**
Reclassification	348	(348)	–	–	–	–
Granted	2,255	–	212	167	2,634	£0.71
Exercised	(224)	(313)	(163)	(138)	(838)	£1.90
Lapsed	(1,984)	(190)	(30)	(229)	(2,433)	£0.97
31 July 2022	**5,310**	**–**	**83**	**885**	**6,278**	**£1.45**

Options and awards were exercised on an irregular basis during the period. The average closing share price over the financial year was 1,476.3p (FY2021: 1,508.6p). There has been no change to the effective option price of any of the outstanding options during the period. The number of exercisable share options at 31 July 2022 was nil (31 July 2021: nil).

Range of exercise prices	**Total shares under options/awards at 31 July 2022 ('000)**	**Weighted average remaining contractual life at 31 July 2022 (months)**	Total shares under options/awards at 31 July 2021 ('000)	Weighted average remaining contractual life at 31 July 2021 (months)
£0.00 – £2.00	5,393	19	5,830	15
£6.01 – £10.00	490	18	655	30
£10.01 – £12.00	395	29	430	24

For the purposes of valuing options to arrive at the share-based payment charge, the binomial option pricing model has been used. The key assumptions used in the model were volatility of 25% to 20% (FY2021: 25% to 20%) and dividend yield of 2.6% (FY2021: 2.8%), based on historical data, for the period corresponding with the vesting period of the option. These generated a weighted average fair value for LTIP of £14.81 (FY2021: £14.10), and restricted stock of £14.59 (FY2021: £14.63). Staff costs included £15m (FY2021: £14m) for share-based payments, of which £14m (FY2021: £13m) related to equity-settled share-based payments.

10 Intangible assets

	Goodwill £m	Development costs £m	Acquired intangibles (see table below) £m	Software, patents and intellectual property £m	Total £m
Cost					
At 31 July 2020	**1,254**	**155**	**546**	**174**	**2,129**
Foreign exchange rate movements	(68)	(7)	(30)	(6)	(111)
Business combinations	21	–	46	–	67
Additions	–	8	–	10	18
Disposals	–	–	–	(1)	(1)
At 31 July 2021	**1,207**	**156**	**562**	**177**	**2,102**
Foreign exchange rate movements	104	6	68	10	188
Additions	–	12	–	6	18
At 31 July 2022	**1,311**	**174**	**630**	**193**	**2,308**
Amortisation and impairments					
At 31 July 2020	**62**	**112**	**249**	**142**	**565**
Foreign exchange rate movements	(3)	(5)	(15)	(4)	(27)
Amortisation charge for the year	–	7	53	7	67
Disposals	–	–	–	(1)	(1)
At 31 July 2021	**59**	**114**	**287**	**144**	**604**
Foreign exchange rate movements	4	6	35	6	51
Amortisation charge for the year	–	3	51	7	61
Impairment charge for the year	4	–	–	–	4
At 31 July 2022	**67**	**123**	**373**	**157**	**720**
Net book value at 31 July 2022	**1,244**	**51**	**257**	**36**	**1,588**
Net book value at 31 July 2021	1,148	42	275	33	1,498
Net book value at 31 July 2020	1,192	43	297	32	1,564

NOTES TO THE ACCOUNTS

In addition to goodwill, acquired intangible assets comprise:

	Patents, licences and trademarks £m	Technology £m	Customer relationships £m	Total acquired intangibles £m
Cost				
At 31 July 2020	**15**	**139**	**392**	**546**
Foreign exchange rate movements	(1)	(7)	(22)	(30)
Business combinations	3	2	41	46
At 31 July 2021	**17**	**134**	**411**	**562**
Foreign exchange rate movements	2	18	48	68
At 31 July 2022	**19**	**152**	**459**	**630**
Amortisation				
At 31 July 2020	**4**	**60**	**185**	**249**
Foreign exchange rate movements	–	(3)	(12)	(15)
Charge for the year	1	10	42	53
At 31 July 2021	**5**	**67**	**215**	**287**
Foreign exchange rate movements	1	10	24	35
Charge for the year	2	10	39	51
At 31 July 2022	**8**	**87**	**278**	**373**
Net book value at 31 July 2022	**11**	**65**	**181**	**257**
Net book value at 31 July 2021	12	67	196	275
Net book value at 31 July 2020	11	79	207	297

Individually material intangible assets comprise £71m of customer related intangibles attributable to United Flexible (remaining amortisation period: 4 years), £61m of customer relationship intangibles attributable to Morpho Detection (remaining amortisation period: 6 years), £35m of customer-related intangibles attributable to Royal Metal (remaining amortisation period: 6 years), and £19m of development cost intangibles attributable to a computed tomography programme in Detection that is currently under development.

The charge associated with the amortisation of intangible assets is included in operating costs on the consolidated income statement.

11 Impairment testing

Goodwill

Goodwill is tested for impairment at least annually or whenever there is an indication that the carrying value may not be recoverable.

Further details of the impairment review process and judgements are included in the 'Sources of estimation uncertainty' section of the 'Basis of preparation' for the consolidated financial statements.

For the purpose of impairment testing, assets are grouped at the lowest levels for which there are separately identifiable cash-flows, known as cash generating units (CGUs), taking into consideration the commonality of reporting, policies, leadership and intra-divisional trading relationships. Goodwill acquired through business combinations is allocated to groups of CGUs at a divisional (or operating segment) level, being the lowest level at which management monitors performance separately.

The carrying value of goodwill at 31 July is allocated by division as follows:

	2022 £m	**2022 Number of CGUs**	2021 £m	2021 Number of CGUs
John Crane	132	1	129	1
Smiths Detection*	644	2	610	1
Flex-Tek	194	1	169	1
Smiths Interconnect	274	1	240	1
Smiths Medical	–	–	–	1
	1,244	**5**	**1,148**	**5**

* In FY2022 the Smiths Detection CGU has been restructured and the Detection Russia business split into a separate CGU, see the 'Russia impairment charges and related closure costs' section below for further details

Critical estimates used in impairment testing

The recoverable amount for impairment testing is determined from the higher of fair value less costs of disposal and value in use of the CGU. In assessing value in use, the estimated future cash-flows are discounted to their present value using a post-tax discount rate that reflects current market assessments of the time value of money, from which pre-tax discount rates are determined.

Fair value less costs of disposal is calculated using available information on past and expected future profitability, valuation multiples for comparable quoted companies and similar transactions (adjusted as required for significant differences) and information on costs of similar transactions. Fair value less costs to sell models are used when trading projections in the strategic plan cannot be adjusted to eliminate the impact of a major restructuring.

The value in use of CGUs is calculated as the net present value of the projected risk-adjusted cash-flows of each CGU. These cash-flow forecasts are based on the FY2023 business plan (as approved by the Board) and the five-year detailed divisional strategic projections which have been prepared by divisional management and approved by the Chief Financial Officer.

The key assumptions used in determining the value in use were:

- **Revenue:** Projected sales were built up with reference to markets and product categories. They incorporated past performance, historical growth rates and projections of developments in key markets;
- **Average earnings before interest and tax margin:** Projected margins reflect historical performance, our expectations for future cost inflation and the impact of all completed projects to improve operational efficiency and leverage scale. The projections did not include the impact of future restructuring projects to which the Group was not yet committed;
- **Projected capital expenditure:** The cash-flow forecasts for capital expenditure were based on past experience and included committed ongoing capital expenditure consistent with the FY2023 budget and the divisional strategic projections. The forecast did not include any future capital expenditure that improved/enhanced the operation/asset in excess of its current standard of performance;
- **Discount rate:** The discount rates have been calculated based on the Group's weighted average cost of capital and risks specific to the CGU being tested. In determining the risk adjusted discount rate, management considered the systematic risk to each of the Group's CGUs and applied an average of discount rates used by other companies for the industries in which Smiths divisions operate. Pre-tax rates of 11.3% to 12.3% (FY2021: 9.9% to 13.2%) have been used for the impairment testing; and
- **Long-term growth rates:** For the purposes of the Group's value in use calculations, a long-term growth rate into perpetuity was applied immediately at the end of the five-year forecast period. Growth rates for the period after the detailed forecasts were based on the long-term GDP projections of the primary market for each CGU. The average growth rate used in the testing was 2.0% (FY2021: 2.1%). These rates did not reflect the long-term assumptions used by the Group for investment planning.

The assumptions used in the impairment testing of CGUs with significant goodwill balances were as follows:

					As at 31 May 2022
		John Crane	**Smiths Detection**	**Flex-Tek**	**Smiths Interconnect**
Net book value of goodwill (£m)		132	640	187	266
Basis of valuation		**Value in use**	**Value in use**	**Value in use**	**Value in use**
Discount rate	– pre-tax	12.3%	11.3%	11.7%	11.5%
	– post-tax	9.1%	8.7%	9.2%	9.3%
Period covered by management projections		5 years	5 years	5 years	5 years
Revenue – compound annual growth rate over projection period		5.3%	3.8%	3.8%	6.0%
Average earnings before interest and tax margin		24.9%	14.1%	19.7%	17.8%
Long-term growth rates		1.9%	2.4%	1.7%	2.1%

						As at 31 July 2021
		John Crane	Smiths Detection	Flex-Tek	Smiths Interconnect	Smiths Medical
Net book value of goodwill (£m)		129	610	169	240	535
Basis of valuation		Value in use	Value in use	Value in use	Value in use	Value in use
Discount rate	– pre-tax	13.2%	10.3%	11.4%	11.1%	9.9%
	– post-tax	9.5%	8.2%	9.1%	9.0%	8.0%
Period covered by management projections		5 years	5 years	5 years	5 years	5 years
Revenue – compound annual growth rate over projection period		6.4%	2.8%	5.0%	5.9%	5.9%
Average earnings before interest and tax margin		25.4%	13.4%	20.0%	19.0%	18.8%
Long-term growth rates		2.1%	1.8%	1.9%	2.4%	2.2%

Forecast earnings before interest and tax have been projected using:

- expected future sales based on the strategic plan, which was constructed at a market level with input from key account managers, product line managers, business development and sales teams. An assessment of the market and existing contracts/programmes was made to produce the sales forecast; and
- current cost structure and production capacity, which include our expectations for future cost inflation. The projections did not include the impact of future restructuring projects to which the Group was not yet committed.

Sensitivity analysis

With the exception of the Smiths Detection CGU, the recoverable amount of all CGUs exceeded their carrying value, on the basis of the assumptions set out in the table above and any reasonably possible changes thereof.

The estimated recoverable amount of the Smiths Detection CGU exceeded the carrying value by £110m. Any decline in estimated value in use in excess of this amount would result in the recognition of impairment charges. If the assumptions used in the impairment review were changed to a greater extent than as presented in the following table, the changes would, in isolation, lead to impairment losses being recognised for the year ended 31 July 2022:

Change required for carrying value to equal recoverable amount – FY2022	**Smiths Detection**
Revenue – compound annual growth rate (CAGR) over 5-year projection period	-240 bps decrease
Average earnings before interest and tax margin	-130 bps decrease
Post-tax discount rate	+70 bps increase

Note: Long-term growth rates are not included in the sensitivity table above as management consider that there is no reasonably possible change in long-term growth rate that would result in an impairment.

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Change required for carrying value to equal recoverable amount – FY2021	Smiths Detection
Revenue – compound annual growth rate (CAGR) over 5-year projection period	-560 bps decrease
Post-tax discount rate	+220 bps increase

Property, plant and equipment, right of use assets and finite-life intangible assets

At each reporting period date, the Group reviews the carrying amounts of its property, plant, equipment, right of use assets and finite-life intangible assets to determine whether there is any indication that those assets have suffered an impairment loss.

The Group has no indefinite life intangible assets other than goodwill. During the year, impairment tests were carried out for capitalised development costs that have not yet started to be amortised and acquired intangibles where there were indications of impairment. Value in use calculations were used to determine the recoverable values of these assets.

In the current year the Group has recognised £17m of impairment charges against its Russia related net balance sheet exposure (FY2021: £nil), see below.

Russia impairment charges and related closure costs

As announced in March 2022, in the current year the Group suspended sales into Russia. Following this decision the Smiths Detection reporting structure has been restructured and the Detection Russia business split into a separate CGU, £4m of the Detection CGU has been apportioned to the Detection Russia CGU and fully impaired.

Management has assessed all Group operations for their exposure to Russia and the value of these Russia related net assets has been fully impaired in FY2022. The Group has recognised £19m of Russia related impairment charges and closure costs through non-headline operating expenses in FY2022 (see note 3), which are analysed as follows:

	John Crane £m	Smiths Detection £m	Total £m
Goodwill	–	4	4
Working capital balances	9	4	13
Net impairment charge	**9**	**8**	**17**
Related closure costs	–	2	2
Russian impairment and related closure costs	**9**	**10**	**19**

12 Property, plant and equipment

	Land and buildings £m	Plant and machinery £m	Fixtures, fittings, tools and equipment £m	Total £m
Cost or valuation				
At 31 July 2020	**175**	**383**	**133**	**691**
Foreign exchange rate movements	(6)	(21)	(6)	(33)
Business combinations	–	2	–	2
Additions	6	38	–	44
Disposals	(3)	(14)	(5)	(22)
At 31 July 2021	**172**	**388**	**122**	**682**
Foreign exchange rate movements	14	37	6	57
Additions	4	42	6	52
Disposals	(14)	(10)	(5)	(29)
At 31 July 2022	**176**	**457**	**129**	**762**
Depreciation				
At 31 July 2020	**102**	**261**	**110**	**473**
Foreign exchange rate movements	(3)	(15)	(6)	(24)
Charge for the year	10	26	4	40
Disposals	(3)	(12)	(4)	(19)
At 31 July 2021	**106**	**260**	**104**	**470**
Foreign exchange rate movements	9	25	5	39
Charge for the year	7	24	7	38
Disposals	(14)	(10)	(4)	(28)
At 31 July 2022	**108**	**299**	**112**	**519**
Net book value at 31 July 2022	**68**	**158**	**17**	**243**
Net book value at 31 July 2021	66	128	18	212
Net book value at 31 July 2020	73	122	23	218

13 Right of use assets

	Properties £m	Vehicles £m	Equipment £m	Total £m
Cost or valuation				
At 31 July 2020	**110**	**14**	**1**	**125**
Foreign exchange rate movements	(5)	(1)	–	(6)
Business combinations	9	1	–	10
Recognition of right of use asset	44	3	–	47
Derecognition of right of use asset	(12)	–	–	(12)
At 31 July 2021	**146**	**17**	**1**	**164**
Foreign exchange rate movements	12	1	–	13
Recognition of right of use asset	18	4	–	22
Derecognition of right of use asset	(2)	(1)	–	(3)
At 31 July 2022	**174**	**21**	**1**	**196**
Depreciation				
At 31 July 2020	**26**	**5**	**–**	**31**
Foreign exchange rate movements	(2)	–	–	(2)
Charge for the year	27	5	–	32
Derecognition of right of use asset	(5)	–	–	(5)
At 31 July 2021	**46**	**10**	**–**	**56**
Foreign exchange rate movements	5	1	–	6
Charge for the year	25	5	–	30
Derecognition of right of use asset	(1)	(1)	–	(2)
At 31 July 2022	**75**	**15**	–	**90**
Net book value at 31 July 2022	**99**	**6**	**1**	**106**
Net book value at 31 July 2021	100	7	1	108
Net book value at 31 July 2020	84	9	1	94

14 Financial assets – other investments

	Investment in ICU Medical, Inc equity £m	Deferred contingent consideration £m	Investments in early stage businesses £m	Cash collateral deposit £m	Total £m
Cost or valuation					
At 31 July 2020	**–**	**–**	**8**	**11**	**19**
Disposals	–	–	–	(7)	(7)
Fair value change through Other Comprehensive Income	–	–	(1)	–	(1)
At 31 July 2021	**–**	**–**	**7**	**4**	**11**
Foreign exchange rate movements	–	–	1	–	1
Additions	426	30	4	–	460
Disposal	–	–	(4)	–	(4)
Fair value change through Profit and Loss	–	(11)	1	–	(10)
Fair value change through Other Comprehensive Income	(62)	–	(1)	–	(63)
At 31 July 2022	**364**	**19**	**8**	**4**	**395**

Following the sale of Smiths Medical the Group has recognised a financial asset for its investment in 10% of the equity in ICU Medical, Inc (ICU) and a financial asset for the fair value of $100m additional sales consideration that is contingent on the future share price performance of ICU.

The Group's investments in early stage businesses are in businesses that are developing or commercialising related technology. Cash collateral deposits represent amounts held on deposit with banks as security for liabilities or letters of credit.

15 Inventories

	31 July 2022 £m	31 July 2021 £m
Raw materials and consumables	187	117
Work in progress	106	81
Finished goods	277	183
Total inventories	**570**	**381**

In FY2022, operating costs for continuing operations included £1,323m (FY2021: £1,233m) of inventory consumed, £12m (FY2021: £8m) was charged for the write-down of inventory and £12m (FY2021: £4m) was released from provisions no longer required.

Discontinued operations consumed £95m (FY2021: £218m) of inventory, £nil (FY2021: £4m) was charged for the write-down of inventory and £nil (FY2021: £1m) was released from provisions no longer required. Further details of discontinued operations are disclosed in note 27.

Inventory provisioning

	31 July 2022 £m	31 July 2021 £m
Gross inventory carried at full value	492	324
Gross value of inventory partly or fully provided for	131	104
	623	428
Inventory provision	(53)	(47)
Inventory after provisions	**570**	**381**

16 Trade and other receivables

	31 July 2022 £m	31 July 2021 £m
Non-current		
Trade receivables	1	–
Contract assets	58	49
Other receivables	10	10
	69	**59**
Current		
Trade receivables	506	431
Prepayments	33	26
Contract assets	127	131
Other receivables	72	42
	738	**630**

Trade receivables do not carry interest. Management considers that the carrying value of trade and other receivables approximates to the fair value. Trade and other receivables, including prepayments, accrued income and other receivables qualifying as financial instruments are accounted for at amortised cost. The maximum credit exposure arising from these financial assets was £726m (FY2021: £629m).

Contract assets comprise unbilled balances not yet due on contracts, where revenue recognition does not align with the agreed payment schedule. The main movements in the year arose from increases in contract asset balances of £19m (FY2021: £18m) principally within Smiths Detection, offset by £15m of foreign currency translation losses (FY2021: £6m loss).

A number of Flex-Tek's and Interconnect's customers provide supplier finance schemes which allow their suppliers to sell trade receivables, without recourse, to banks. This is commonly known as invoice discounting or factoring. During FY2022 the Group collected £92m of receivables through these schemes (FY2021: £90m). The impact of invoice discounting on the FY2022 balance sheet was that trade receivables were reduced by £19m (2021: £14m). The cash received via these schemes was classified as an operating cash inflow as it had arisen from operating activities.

Trade receivables are disclosed net of provisions for expected credit loss, with historical write-offs used as a basis and a default risk multiplier applied to reflect country risk premium. Credit risk is managed separately for each customer and, where appropriate, a credit limit is set for the customer based on previous experience of the customer and third-party credit ratings. The Group has no significant concentration of credit risk, with exposure spread over a large number of customers. The largest single customer was the US Federal Government, representing 7% (FY2021: 7%) of Group revenue.

Ageing of trade receivables

	31 July 2022 £m	31 July 2021 £m
Trade receivables which are not yet due	396	338
Trade receivables which are between 1-30 days overdue	51	45
Trade receivables which are between 31-60 days overdue	24	15
Trade receivables which are between 61-90 days overdue	11	8
Trade receivables which are between 91-120 days overdue	7	5
Trade receivables which are more than 120 days overdue	54	52
	543	463
Expected credit loss allowance provision	(36)	(32)
Trade receivables	**507**	**431**

Movement in expected credit loss allowance

	31 July 2022 £m	31 July 2021 £m
Brought forward loss allowance at the start of the period	32	35
Exchange adjustments	4	(2)
Increase in allowance recognised in the income statement	8	6
Amounts written off or recovered during the year	(8)	(7)
Carried forward loss allowance at the end of the year	**36**	**32**

17 Trade and other payables

	31 July 2022 £m	31 July 2021 £m
Non-current		
Other payables	13	13
Contract liabilities	33	46
	46	**59**
Current		
Trade payables	282	188
Other payables	57	39
Other taxation and social security costs	30	28
Accruals	183	188
Contract liabilities	130	87
	682	**530**

Trade and other payables, including accrued expenses and other payables qualifying as financial instruments, are accounted for at amortised cost and are categorised as Trade and other financial payables in note 21.

Contract liabilities comprise deferred income balances of £163m (FY2021: £133m) in respect of payments being made in advance of revenue recognition. The movement in the year arises primarily from the long-term contracts of the Smiths Detection division where invoicing under milestones precedes the delivery of the programme performance obligations. Revenue recognised in the year includes £113m (FY2021: £94m) that was included in the opening contract liabilities balance. This revenue primarily relates to the delivery of performance obligations in the Smiths Detection business.

18 Borrowings and net debt

This note sets out the calculation of net debt, an important measure in explaining our financing position. Net debt includes accrued interest and fair value adjustments relating to hedge accounting.

	31 July 2022 £m	31 July 2021 £m
Cash and cash equivalents		
Net cash and deposits	**1,056**	**405**
Short-term borrowings		
€600m 1.25% Eurobond 2023	(502)	–
Overdrafts	(1)	–
Lease liabilities	(29)	(27)
Interest accrual	(6)	(9)
	(538)	**(36)**
Long-term borrowings		
$400m 3.625% US$ Guaranteed notes 2022	–	(289)
€600m 1.25% Eurobond 2023	–	(516)
€650m 2.00% Eurobond 2027	(538)	(567)
Lease liabilities	(90)	(94)
	(628)	**(1,466)**
Borrowings / Gross debt	**(1,166)**	**(1,502)**
Derivatives managing interest rate risk and currency profile of the debt	(40)	75
Net cash/(debt) (31 July 2021 comparative excludes £4m of net cash in businesses held for sale)	**(150)**	**(1,022)**

Cash and cash equivalents

	31 July 2022 £m	31 July 2021 £m
Cash at bank and in hand	242	219
Short-term deposits	814	186
Cash and cash equivalents	**1,056**	**405**

Cash and cash equivalents include highly liquid investments with maturities of three months or less. Borrowings are accounted for at amortised cost and are categorised as other financial liabilities. See note 18 for a maturity analysis of borrowings. Interest of £30m (FY2021: £30m) was charged to the consolidated income statement in the period in respect of public bonds.

Analysis of financial derivatives on balance sheet

	Non-current assets £m	Current assets £m	Current liabilities £m	Non-current liabilities £m	Net balance £m
Derivatives managing interest rate risk and currency profile of the debt	–	–	(20)	(20)	(40)
Foreign exchange forward contracts	–	4	(7)	–	(3)
At 31 July 2022	**–**	**4**	**(27)**	**(20)**	**(43)**
Derivatives managing interest rate risk and currency profile of the debt	75	–	–	–	75
Foreign exchange forward contracts	–	2	(3)	–	(1)
At 31 July 2021	**75**	**2**	**(3)**	**–**	**74**

Movements in assets/(liabilities) arising from financing activities

	Changes in net debt						
	Cash and cash equivalents £m	Other short-term borrowings £m	Long-term borrowings £m	Interest rate & cross-currency swaps £m	**Net debt £m**	Changes in other financing items: FX contracts £m	**Total liabilities from financing activities £m**
At 31 July 2020	**366**	**(41)**	**(1,520)**	**82**	**(1,113)**	**(2)**	**(1,115)**
Foreign exchange gains/(losses)	(24)	2	79	–	57	(3,200)	(3,143)
Net cash inflow from continuing operations *	63	33	–	–	96	3,200	3,296
Lease liabilities acquired	–	(1)	(10)	–	(11)	–	(11)
Net movement from lease modifications	–	(46)	–	–	(46)	–	(46)
Fair value movement from interest rate hedging	–	–	8	–	8	–	8
Revaluation of derivative contracts	–	–	–	(7)	(7)	3	(4)
Interest expense taken to income statement**	–	(4)	(31)	–	(35)	–	(35)
Interest paid	–	–	29	–	29	–	29
Reclassification to short-term borrowings	–	21	(21)	–	–	–	–
At 31 July 2021	**405**	**(36)**	**(1,466)**	**75**	**(1,022)**	**1**	**(1,021)**
Foreign exchange gains/(losses)	62	(3)	4	–	63	(6,799)	(6,736)
Net cash inflow from continuing operations *	589	34	295	–	918	6,799	7,717
Net movement from lease modifications	–	(22)	–	–	(22)	–	(22)
Fair value movement from interest rate hedging	–	2	27	–	29	–	29
Revaluation of derivative contracts	–	–	–	(115)	(115)	(4)	(119)
Interest expense taken to income statement**	–	(35)	–	–	(35)	–	(35)
Interest paid	–	–	34	–	34	–	34
Reclassification to short-term borrowings	–	(478)	478	–	–	–	–
At 31 July 2022	**1,056**	**(538)**	**(628)**	**(40)**	**(150)**	**(3)**	**(153)**

* In FY21, the net cash inflow for the total Group including discontinued operations was £91m. £63m from continuing operations and £28m from discontinued operations. In FY22, the net cash inflow for the total Group including discontinued operations was £589m, £57m of which related to the cash held by the Smiths Medical at the time of disposal.

** The Group has also incurred £8m (FY2021: £9m) of bank charges that were expensed when paid and were not included in net debt.

Cash pooling

Cash and overdraft balances in interest compensation cash pooling systems are reported gross on the balance sheet. The cash pooling agreements incorporate a legally enforceable right of net settlement. However, as there is no intention to settle the balances net, these arrangements do not qualify for net presentation. At 31 July 2022 the total value of overdrafts on accounts in interest compensation cash pooling systems was £nil (FY2021: £nil). The balances held in zero balancing cash pooling arrangements have daily settlement of balances. Therefore netting is not relevant.

Secured loans

Loans amounting to £nil (FY2021: £nil) were secured on plant and equipment with a book value of £nil (FY2021: £nil).

Change of control

The Company has in place credit facility agreements under which a change in control would trigger prepayment clauses. The Company also has bonds in issue, the terms of which would allow bondholders to exercise put options and require the Company to buy back the bonds at their principal amount plus interest if a rating downgrade occurs at the same time as a change of control takes effect.

Lease liabilities

Lease liabilities have been measured at the present value of the remaining lease payments. The weighted average incremental borrowing rate applied to lease liabilities in FY2022 was 3.63% (FY2021: 3.3%).

19 Financial risk management

The Group's international operations and debt financing expose it to financial risks which include the effects of changes in foreign exchange rates, debt market prices, interest rates, credit risks and liquidity risks. The management of operational credit risk is discussed in note 16.

Treasury Risk Management Policy

The Board maintains a Treasury Risk Management Policy, which governs the treasury operations of the Group and its subsidiary companies and the consolidated financial risk profile to be maintained. A report on treasury activities, financial metrics and compliance with the Policy is circulated to the Chief Financial Officer each month and key elements to the Audit and Risk Committee on a semi-annual basis.

The Policy maintains a treasury control framework within which counterparty risk, financing and debt strategy, cash and liquidity, interest rate risk and currency translation management are reserved for Group Treasury, while currency transaction management is devolved to operating divisions.

Centrally directed cash management systems exist globally to manage overall liquid resources efficiently across the divisions. The Group uses financial instruments to raise financing for its global operations, to manage related interest rate and currency financial risk, and to hedge transaction risk within subsidiary companies.

The Group does not speculate in financial instruments. All financial instruments hedge existing business exposures and all are recognised on the balance sheet.

The Policy defines four treasury risk components and for each component a set of financial metrics to be measured and reported monthly against pre-agreed objectives.

1) Credit quality

The Group's strategy is to maintain a solid investment-grade rating to ensure access to the widest possible sources of financing at the right time and to optimise the resulting cost of debt capital. The credit ratings at the end of July 2022 were BBB+ / Baa2 (both stable) from Standard & Poor's and Moody's respectively. An essential element of an investment-grade rating is consistent and robust cash-flow metrics. The Group's objective is to maintain a net debt/headline EBITDA ratio of two times or lower over the medium term. Capital management is discussed in more detail in note 26.

2) Debt and interest rate

The Group's risk management objectives are to ensure that the majority of funding is drawn from the public debt markets with the average maturity profile of gross debt to be at or greater than three years, and between 40-60% of gross debt is at fixed rates. At 31 July 2022 these measures were 100% (FY2021: 100%), 2.7 years (FY2021: 3.2 years) and 50% (FY2021: 54%). The average maturity profile of gross debt is below the target of three years because the net cash resources of £1,055m are sufficient to cover the short-term borrowings of £538m.

The Group remains in full compliance with all covenants within its external debt agreements. Interest rate risk management is discussed in note 19(b).

3) Liquidity management

The Group's objective is to ensure that at any time undrawn committed facilities, net of short-term overdraft financing, are at least £300m and that committed facilities have at least 12 months to run until maturity. At 31 July 2022, these measures were £657m (FY2021: £575m) and 27 months (FY2021: 39 months). At 31 July 2022, net cash resources were £1,055m (FY2021: £405m). Liquidity risk management is discussed in note 19(d).

4) Currency management

The Group is an international business with the majority of its net assets denominated in foreign currency. It protects the balance sheet and reserves from adverse foreign exchange movements by financing foreign currency assets where appropriate in the same currency. The Group's objective for managing transaction currency exposure is to reduce medium-term volatility to cash-flow, margins and earnings. Foreign exchange risk management is discussed in note 18(a) below.

(a) Foreign exchange risk

Transactional currency exposure

The Group is exposed to foreign currency risks arising from sales or purchases by businesses in currencies other than their functional currency. It is Group policy that, when the net foreign exchange exposure to known future sales and purchases is material, this exposure is hedged using forward foreign exchange contracts. The net exposure is calculated by adjusting the expected cash-flow for payments or receipts in the same currency linked to the sale or purchase. This policy minimises the risk that the profits generated from the transaction will be affected by foreign exchange movements which occur after the price has been determined. Hedge accounting documentation and effectiveness testing are only undertaken if it is cost effective.

The following table shows the currency of financial instruments. It excludes loans and derivatives designated as net investment hedges.

At 31 July 2022	Sterling £m	US$ £m	Euro £m	Other £m	Total £m
Financial assets and liabilities					
Financial instruments included in trade and other receivables	41	423	114	169	747
Financial instruments included in trade and other payables	(52)	(239)	(98)	(101)	(490)
Cash and cash equivalents	355	506	74	120	1,055
Borrowings not designated as net investment hedges	(28)	(58)	(14)	(19)	(119)
	316	632	76	169	1,193
Exclude balances held in operations with the same functional currency.	(322)	(149)	(80)	(142)	(693)
Exposure arising from intra-Group loans	–	(419)	(27)	(89)	(535)
Future forward foreign exchange contract cash-flows	(42)	(40)	(38)	120	–
	(48)	**24**	**(69)**	**58**	**(35)**

At 31 July 2021	Sterling £m	US$ £m	Euro £m	Other £m	Total £m
Financial assets and liabilities					
Financial instruments included in trade and other receivables	28	326	113	177	644
Financial instruments included in trade and other payables	(49)	(167)	(79)	(64)	(359)
Cash and cash equivalents	46	187	80	92	405
Borrowings not designated as net investment hedges	(31)	(55)	(12)	(21)	(119)
	(6)	291	102	184	571
Exclude balances held in operations with the same functional currency	7	(110)	(80)	(183)	(366)
Exposure arising from intra-Group loans	–	(182)	(19)	(75)	(276)
Future forward foreign exchange contract cash-flows	(51)	(67)	22	96	–
	(50)	**(68)**	**25**	**22**	**(71)**

Financial instruments included in trade and other receivables comprise trade receivables, accrued income and other receivables which qualify as financial instruments. Similarly, financial instruments included in trade and other payables comprise trade payables, accrued expenses and other payables that qualify as financial instruments.

Based on the assets and liabilities held at the year-end, if the specified currencies were to strengthen 10% while all other market rates remained constant, the change in the fair value of financial instruments not designated as net investment hedges would have the following effect:

	Impact on profit for the year FY2022 £m	**Gain/(loss) recognised in reserves FY2022 £m**	Impact on profit for the year FY2021 £m	Gain/(loss) recognised in reserves FY2021 £m
US dollar	(3)	1	3	2
Euro	8	(1)	2	(5)
Sterling	4	–	(1)	2

These sensitivities were calculated before adjusting for tax and exclude the effect of quasi-equity intra-Group loans.

Cash-flow hedging

The Group uses forward foreign exchange contracts to hedge future foreign currency sales and purchases. At 31 July 2022, contracts with a nominal value of £141m (FY2021: £107m) were designated as hedging instruments. In addition, the Group had outstanding foreign currency contracts with a nominal value of £226m (FY2021: £251m) which were being used to manage transactional foreign exchange exposures, but were not accounted for as cash-flow hedges. The fair value of the contracts is disclosed in note 20.

The majority of hedged transactions will be recognised in the consolidated income statement in the same period that the cash-flows are expected to occur, with the only differences arising because of normal commercial credit terms on sales and purchases. It is the Group's policy to hedge 80% of certain exposures for the next two years and 50% of highly probable exposures for the next 12 months.

Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and hedging instrument. The foreign exchange forward contracts have similar critical terms to the hedged items, such as the notional amounts and maturities. Therefore, there is an economic relationship and the hedge ratio is established as 1:1.

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The main sources of hedge ineffectiveness in these hedging relationships are the effect of the Group's and the counterparty credit risks on the fair value of the foreign exchange forward contracts, which is not reflected in the fair value of the hedged item and the risk of over-hedging where the hedge relationship requires re-balancing. No other sources of ineffectiveness emerged from these hedging relationships. Any hedge ineffectiveness is recognised immediately in the income statement in the period that it occurs. Of the foreign exchange contracts designated as hedging instruments, 98% are for periods of 12 months or less (FY2021: 89%).

The following table presents a reconciliation by risk category of the cash-flow hedge reserve and analysis of other comprehensive income in relation to hedge accounting:

		Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Brought forward cash-flow hedge reserve at start of year		2	–
Foreign exchange forward contracts:	Net fair value gains on effective hedges	(6)	1
	Amount reclassified to income statement – cost of sales	–	1
	Amount reclassified to income statement – finance costs	1	–
Carried forward cash-flow hedge reserve at end of year		**(3)**	**2**

The following tables set out information regarding the change in value of the hedged item used in calculating hedge ineffectiveness as well as the impacts on the cash-flow hedge reserve:

Hedged item	Hedged exposure	Hedging instrument	Financial year	Changes in value of the hedged item for calculating ineffectiveness £m	Changes in value of the hedging instrument for calculating ineffectiveness £m	Cash-flow hedge reserve £m
Sales and purchases	Foreign currency risk	Foreign exchange contracts	FY2022	(6)	6	(6)
			FY2021	1	(1)	1

Cash-flow hedges generated £nil of ineffectiveness in FY2022 (FY2021: £nil) which was recognised in the income statement through finance costs.

Translational currency exposure

The Group has significant investments in overseas operations, particularly in the US and Europe. As a result, the sterling value of the Group's balance sheet can be significantly affected by movements in exchange rates. The Group seeks to mitigate the effect of these translational currency exposures by matching the net investment in overseas operations with borrowings denominated in their functional currencies, except where significant adverse interest differentials or other factors would render the cost of such hedging activity uneconomic. This is achieved by borrowing primarily in the relevant currency or in some cases indirectly using cross-currency swaps.

Net investment hedges

The table below sets out the currency of loans and swap contracts designated as net investment hedges:

	At 31 July 2022			At 31 July 2021		
	US$ £m	Euro £m	Total £m	US$ £m	Euro £m	Total £m
Loans designated as net investment hedges	–	(451)	(451)	(285)	(459)	(744)
Cross-currency swap	(615)	–	(615)	(539)	–	(539)
	(615)	**(451)**	**(1,066)**	**(824)**	**(459)**	**(1,283)**

At 31 July 2022, cross-currency swaps hedged the Group's exposure to US dollars and euros (31 July 2021: US dollars and euros). All the cross-currency swaps designated as net investment hedges were current and non-current (FY2021: non-current).

Swaps generating £354m of the US dollar exposure (FY2021: £310m) will mature in April 2023 and swaps generating £261m of the US dollar exposure (FY2021: £229m) will mature in February 2027.

In addition, non-swapped borrowings were also used to hedge the Group's exposure to US dollars and euros (31 July 2021 US dollars and euros). Borrowings generating £285m of the US dollar exposure (FY2021: £285m) have been prepaid in February 2022.

Borrowings generating £500m of the euro exposure (FY2021: £508m) will mature in April 2023 and borrowings generating £287m of the euro exposure (FY2021: £292m) will mature in February 2027.

Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and hedging instrument. The swaps and borrowings have the same notional amount as the hedged items and, therefore, there is an economic relationship with the hedge ratio established as 1:1.

The main sources of hedge ineffectiveness in these hedging relationships is the effect of the counterparty and the Group's own credit risk on the fair value of the foreign exchange forward contracts which is not reflected in the fair value of the hedged item and the risk of over-hedging where the hedge relationship requires re-balancing. No other sources of ineffectiveness emerged from these hedging relationships. Any hedge ineffectiveness is recognised immediately in the income statement in the period that it occurs.

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The following table presents a reconciliation by risk category of the net investment hedge reserve and analysis of other comprehensive income in relation to hedge accounting:

		Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Brought forward net investment hedge reserve at start of year		(238)	(314)
Cross-currency swaps	Net fair value gains on effective hedges	(82)	14
Bonds	Net fair value gains on effective hedges	5	62
Amounts removed from the hedge reserve and recognised in the income statement	Profit/(loss) on business disposal	103	–
Carried forward net investment hedge reserve at end of year		**(212)**	**(238)**

The following table sets out information regarding the change in value of the hedged item used in calculating hedge ineffectiveness as well as the impacts on the net investment hedge reserve as at 31 July 2022 and 31 July 2021:

Hedged item	Hedged exposure	Hedging instrument	Financial year	Changes in value of the hedged item for calculating ineffectiveness £m	Changes in value of the hedging instrument for calculating ineffectiveness £m	Net investment hedge reserve £m
Overseas operation	Foreign currency risk	Cross-currency swaps	FY2022	82	(82)	(82)
		Bonds	FY2022	(5)	5	5
				77	**(77)**	**(77)**
Overseas operation	Foreign currency risk	Cross-currency swaps	FY2021	(14)	17	14
		Bonds	FY2021	(62)	62	62
				(76)	**79**	**76**

Net investment hedges generated £1m of ineffectiveness in FY2022 (FY2021: £3m) which was recognised in the income statement through finance costs.

The fair values of these net investment hedges are subject to exchange rate movements. Based on the hedging instruments in place at the year-end, if the specified currencies were to strengthen 10% while all other market rates remained constant, it would have the following effect:

	Loss recognised in hedge reserve 31 July 2022 £m	Loss recognised in hedge reserve 31 July 2021 £m
US dollar	68	92
Euro	50	51

These movements would be fully offset by an opposite movement on the retranslation of the net assets of the overseas subsidiaries. These sensitivities were calculated before adjusting for tax.

(b) Interest rate risk

The Group operates an interest rate policy designed to optimise interest cost and reduce volatility in reported earnings. The Group's current policy is to require interest rates to be fixed within a band of between 40% and 60 % of the level of gross debt. This is achieved through fixed rate borrowings and interest rate swaps. At 31 July 2022, 50% (FY2021: 54%) of the Group's gross borrowings were at fixed interest rates, after adjusting for interest rate swaps and the impact of short maturity derivatives designated as net investment hedges.

The Group monitors its fixed rate risk profile against both gross and net debt. For medium-term planning, it focuses on gross debt to eliminate the fluctuations of variable cash levels over the cycle. The weighted average interest rate on borrowings and cross-currency swaps at 31 July 2022, after interest rate swaps, was 3.06% (FY2021: 2.06%).

Interest rate profile of financial assets and liabilities and the fair value of borrowings

The following table shows the interest rate risk exposure of investments, cash and borrowings, with the borrowings adjusted for the impact of interest rate hedging. Other financial assets and liabilities do not earn or bear interest, and for all financial instruments except borrowings, the carrying value is not materially different from their fair value.

	As at 31 July 2022				As at 31 July 2021			
	At fair value through profit or loss £m	Cash and cash equivalents £m	Borrowings £m	Fair value of borrowings £m	At fair value through profit or loss £m	Cash and cash equivalents £m	Borrowings £m	Fair value of borrowings £m
Fixed interest								
Less than one year	–	–	(203)	(203)	–	–	(36)	(36)
Between one and five years	–	–	(357)	(359)	–	–	(418)	(434)
Greater than five years	–	–	(24)	(24)	–	–	(321)	(353)
Total fixed interest financial liabilities	**–**	**–**	**(584)**	**(586)**	**–**	**–**	**(775)**	**(823)**
Floating rate interest financial assets/(liabilities)*	390	970	(582)	(586)	4	333	(727)	(736)
Total interest-bearing financial assets/(liabilities)	**390**	**970**	**(1,166)**	**(1,172)**	4	**333**	**(1,502)**	**(1,559)**
Non-interest-bearing assets in the same category	4	86	–	–	7	72	–	–
Total	**394**	**1,056**	**(1,166)**	**(1,172)**	**11**	**405**	**(1,502)**	**(1,559)**

* Fair value gains and losses in this category of assets are recognised in other comprehensive income.

Interest rate hedging

The Group also has exposures to the fair values of non-derivative financial instruments such as EUR and USD fixed rate borrowings. To manage the risk of changes in these fair values, the Group has entered into fixed-to-floating interest rate swaps and cross-currency interest rate swaps which for accounting purposes are designated as fair value hedges.

At 31 July 2022 and 31 July 2021, the Group had designated the following hedges against variability in the fair value of borrowings arising from fluctuations in base rates:

- €400m of the fixed/floating element of the EUR/USD interest rate swaps that mature on 28 April 2023 partially hedging the € 2023 Eurobond;
- €300m of the fixed/floating and € exchange exposure of EUR/USD interest rate swaps maturing on 23 February 2027 partially hedging the € 2027 Eurobond; and
- The $150m interest rate swap which matures on 12 October 2022, partially hedging the USD 2022 Guaranteed notes, was early redeemed in February 2022.

The fair values of the hedging instruments are disclosed in note 20. The effect of the swaps was to convert £588m (FY2021: £705m) debt from fixed rate to floating rate. The swaps have similar critical terms to the hedged items, such as the reference rate, reset dates, notional amounts, payment dates and maturities. Therefore, there is an economic relationship and the hedge ratio is established as 1:1. Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and hedging instrument.

The main sources of hedge ineffectiveness in these hedging relationships is the effect of the currency basis risk on cross-currency interest rate swaps which are not reflected in the fair value of the hedged item. No other sources of ineffectiveness emerged from these hedging relationships. Any hedge ineffectiveness was recognised immediately in the income statement in the period in which it occurred.

The following table sets out the details of the hedged exposures covered by the Group's fair value hedges:

					Carrying amount		Accumulated fair value adjustments on hedged item	
Hedged item	Hedged exposure	Financial year	Changes in value of hedged item for calculating ineffectiveness £m	Changes in value of the hedging instrument for calculating ineffectiveness £m	Assets £m	Liabilities £m	Assets £m	Liabilities £m
Fixed rate bonds (a)	Interest rate risk	FY2022	8	(8)	–	336	–	(2)
	Interest rate & currency rate risk	FY2022	21	(20)	–	252	–	(5)
			29	**(28)**	**–**	**588**	**–**	**(7)**
Fixed rate bonds (a)	Interest rate risk	FY2021	5	(5)	–	449	–	6
	Interest rate & currency rate risk	FY2021	4	(7)	–	256	–	16
			9	**(12)**	**–**	**705**	**–**	**22**

(a) Classified as borrowings

Fair value hedges generated a £1m ineffectiveness in FY2022 (FY2021: £3m) which was recognised in the income statement through finance costs.

Sensitivity of interest charges to interest rate movements

The Group has exposure to sterling, US dollar and euro interest rates. However, the Group does not have a significant exposure to interest rate movements for any individual currency. Based on the composition of net debt and investments at 31 July 2022, and taking into consideration all fixed rate borrowings and interest rate swaps in place, a one percentage point (100 basis points) change in average floating interest rates for all three currencies would have a £2m impact (FY2021: £5m impact) on the Group's profit before tax.

Impact of LIBOR transition

The UK Financial Conduct Authority announced on 5 March 2021 that LIBOR benchmark rates will be discontinued after 31 December 2021 except the majority of US dollar settings which will be discontinued after 30 June 2023. The Group is exposed to interest rate benchmark reform on its interest rate swaps and cross-currency interest rate swaps which reference 3-month and 6-month USD LIBOR, have an aggregate nominal value of USD 749m, and mature between April 2023 and February 2027. In April 2021 the Group confirmed adherence to the ISDA 2020 IBOR Fallbacks Protocol as published by the International Swaps and Derivatives Association, Inc. (ISDA) on 23 October 2021 (the Protocol), ensuring that appropriate fallbacks can apply to these derivatives in the event of LIBOR discontinuation.

(c) Financial credit risk

The Group is exposed to credit-related losses in the event of non-performance by counterparties to financial instruments, but does not currently expect any counterparties to fail to meet their obligations. Credit risk is mitigated by the Board-approved policy of only placing cash deposits with highly rated relationship bank counterparties within counterparty limits established by reference to their Standard & Poor's long-term debt rating. In the normal course of business, the Group operates cash pooling systems, where a legal right of set-off applies.

The maximum credit risk exposure in the event of other parties failing to perform their obligations under financial assets, excluding trade and other receivables and derivatives, totals £1,067m at 31 July 2022 (FY2021: £416m).

	31 July 2022 £m	31 July 2021 £m
Cash in AAA liquidity funds	551	116
Cash at banks with at least a AA- credit rating	104	46
Cash at banks with all other A credit ratings	397	237
Cash at other banks	4	6
Investments in bank deposits	4	4
Other investments	7	7
	1,067	**416**

At 31 July 2022, the maximum exposure with a single bank for deposits and cash was £339m (FY2021: £79m), whilst the maximum mark to market exposure with a single bank for derivatives was £15m (FY2021: £26m). These banks have AAA and AA- credit ratings respectively (FY2021: Both AAA and AA-).

(d) Liquidity risk

Borrowing facilities

Board policy specifies the maintenance of unused committed credit facilities of at least £300m at all times to ensure that the Group has sufficient available funds for operations and planned development. The Group has Revolving Credit Facilities of $800m maturing 1 November 2024. At the balance sheet date, the Group had the following undrawn credit facilities:

	31 July 2022 £m	31 July 2021 £m
Expiring after more than two years	657	**575**

Cash deposits

As at 31 July 2022, £814m (FY2021: £186m) of cash and cash equivalents was on deposit with various banks of which £558m (FY2021: £116m) was in liquidity funds. £4m (FY2021: £4m) of investments comprised bank deposits held to secure liabilities and letters of credit.

Gross contractual cash-flows for borrowings

	As at 31 July 2022				As at 31 July 2021			
	Borrowings (note 18) £m	**Fair value adjustments £m**	**Contractual interest payments £m**	**Total contractual cash-flows £m**	Borrowings (note 18) £m	Fair value adjustments £m	Contractual interest payments £m	Total contractual cash-flows £m
Less than one year	(539)	2	(17)	(554)	(36)	–	(28)	(64)
Between one and two years	(23)	–	(11)	(34)	(823)	(6)	(23)	(852)
Between two and three years	(20)	–	(11)	(31)	(20)	–	(11)	(31)
Between three and four years	(14)	–	(11)	(25)	(14)	–	(11)	(25)
Between four and five years	(552)	5	(11)	(558)	(10)	–	(11)	(21)
Greater than five years	(24)	–	–	(24)	(577)	(16)	(11)	(604)
Total	**(1,172)**	**7**	**(61)**	**(1,226)**	**(1,480)**	**(22)**	**(95)**	**(1,597)**

The figures presented in the borrowings column include the non-cash adjustments which are highlighted in the adjacent column.
The contractual interest reported for borrowings is before the effect of interest rate swaps.

Gross contractual cash-flows for derivative financial instruments

	As at 31 July 2022			As at 31 July 2021		
	Receipts £m	Payments £m	Net cash-flow £m	Receipts £m	Payments £m	Net cash-flow £m
Assets						
Less than one year	495	(521)	(26)	142	(144)	(2)
Greater than one year	270	(290)	(20)	642	(568)	74
Liabilities						
Less than one year	212	(209)	3	220	(219)	1
Greater than one year	8	(8)	–	3	(2)	1
Total	**985**	**(1,028)**	**(43)**	**1,007**	**(933)**	**74**

This table above presents the undiscounted future contractual cash-flows for all derivative financial instruments. For this disclosure, cash-flows in foreign currencies are translated using the spot rates at the balance sheet date. The fair values of these financial instruments are presented in note 20.

Gross contractual cash-flows for other financial liabilities

The contractual cash-flows for financial liabilities included in trade and other payables were £474m (FY2021: £351m) due in less than one year and £13m (FY2021: £8m) due between one and five years.

20 Derivative financial instruments

The tables below set out the nominal amount and fair value of derivative contracts held by the Group, identifying the derivative contracts which qualify for hedge accounting treatment:

	At 31 July 2022			
		Fair value		
	Contract or underlying nominal amount £m	Assets £m	Liabilities £m	Net £m
Foreign exchange contracts (cash-flow hedges)	141	3	(5)	(2)
Foreign exchange contracts (not hedge accounted)	226	1	(2)	(1)
Total foreign exchange contracts	**367**	**4**	**(7)**	**(3)**
Cross-currency swaps (fair value and net investment hedges)	615	–	(40)	(40)
Total financial derivatives	**982**	**4**	**(47)**	**(43)**
Balance sheet entries:				
Non-current	269	–	(20)	(20)
Current	713	4	(27)	(23)
Total financial derivatives	**982**	**4**	**(47)**	**(43)**

	At 31 July 2021			
		Fair value		
	Contract or underlying nominal amount £m	Assets £m	Liabilities £m	Net £m
Foreign exchange contracts (cash-flow hedges)	107	1	(2)	(1)
Foreign exchange contracts (not hedge accounted)	251	1	(1)	–
Total foreign exchange contracts	**358**	**2**	**(3)**	**(1)**
Cross-currency swaps (fair value and net investment hedges)	539	72	–	72
Interest rate swaps (fair value hedges)	108	3	–	3
Total financial derivatives	**1,005**	**77**	**(3)**	**74**
Balance sheet entries:				
Non-current	655	75	–	75
Current	350	2	(3)	(1)
Total financial derivatives	**1,005**	**77**	**(3)**	**74**

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The maturity profile, average interest and foreign currency exchange rates of the hedging instruments used in the Group's hedging strategies are as follows:

Hedged exposure	Hedging instrument		**Maturity at 31 July 2022** Up to one year	**Maturity at 31 July 2022** One to five years	**Maturity at 31 July 2022** More than five years	Maturity at 31 July 2021 Up to one year	Maturity at 31 July 2021 One to five years	Maturity at 31 July 2021 More than five years
Fair value hedges								
Interest rate risk	Interest rate swaps – USD	– Notional amount (£m)	–	–	–	–	108	–
		– Average spread over 6 month USD LIBOR	–	–	–	–	1.797%	–
	Interest rate swaps – EUR	– Notional amount (£m)	336	–	–	–	341	–
		– Average spread over 3 month EUR LIBOR	1.015%	–	–	–	1.015%	–
Interest rate risk/ Foreign currency risk	Cross-currency swaps (EUR:GBP)	– Notional amount (£m)	–	254	–	–	–	254
		– Average exchange rate	–	0.845	–	–	–	0.845
		– Average spread over 3 month GBP LIBOR	–	1.750%	–	–	–	1.750%
Net investment hedges								
Foreign currency risk	Cross-currency swaps (EUR:USD)	– Notional amount (£m)	354	–	–	–	310	–
		– Average exchange rate	1.0773	–	–	–	1.0773	–
	Cross-currency swaps (GBP:USD)	– Notional amount (£m)	–	261	–	–	–	229
		– Average exchange rate	–	1.2534	–	–	–	1.2534
Cash-flow hedges								
Foreign currency risk	Foreign exchange contracts (EUR:USD)	– Notional amount (£m)	77	–	–	47	5	–
		– Average exchange rate	4.1785	–	–	1.1915	1.2205	–
	Foreign exchange contracts (EUR:GBP)	– Notional amount (£m)	28	8	–	31	3	–
		– Average exchange rate	0.8323	1.1676	–	0.8996	0.9094	–
	Foreign exchange contracts (EUR:AUD)	– Notional amount (£m)	6	–	–	7	–	–
		– Average exchange rate	1.5226	–	–	1.5832	–	–
	Foreign exchange contracts (USD:GBP)	– Notional amount (£m)	16	–	–	8	–	–
		– Average exchange rate	1.3273	–	–	1.3577	–	–
	Foreign exchange contracts (GBP:CZK)	– Notional amount (£m)	6	–	–	6	–	–
		– Average exchange rate	30.2988	–	–	29.7028	–	–

At 31 July 2022, the Group had forward foreign exchange contracts with a nominal value of £141m (FY2021: £107m) designated as cash-flow hedges. These forward foreign exchange contracts are in relation to sale and purchase of multiple currencies with varying maturities up to 20 July 2023. The largest single currency pairs are disclosed above and make up 100% of the notional hedged exposure. The notional and fair values of these foreign exchange forward derivatives are shown in the nominal amount and fair value of derivative contracts table on page 148.

Accounting for other derivative contracts

Any foreign exchange contracts which are not formally designated as hedges and tested are classified as 'held for trading' and not hedge accounted.

Netting

International Swaps and Derivatives Association (ISDA) master netting agreements are in place with derivative counterparties except for contracts traded on a dedicated international electronic trading platform used for operational foreign exchange hedging. Under these agreements if a credit event occurs, all outstanding transactions under the ISDA are terminated and only a single net amount per counterparty is payable in settlement of all transactions. The ISDA agreements do not meet the criteria for offsetting, since the offsetting is enforceable only if specific events occur in the future, and there is no intention to settle the contracts on a net basis.

	Assets 31 July 2022 £m	**Liabilities 31 July 2022 £m**	Assets 31 July 2021 £m	Liabilities 31 July 2021 £m
Gross value of assets and liabilities	4	(47)	77	(3)
Related assets and liabilities subject to master netting agreements	(4)	4	(1)	1
Net exposure	**–**	**(43)**	**76**	**(2)**

21 Fair value of financial instruments

As at 31 July 2022	Notes	Basis for determining fair value	At amortised cost £m	At fair value through profit or loss £m	At fair value through OCI £m	Total carrying value £m	Total fair value £m
Financial assets							
Other investments	14	A	–	4	364	368	368
Other investments	14	F	–	19	8	27	27
Cash and cash equivalents	18	A	506	550	–	1,056	1,056
Trade and other financial receivables	16	B/C	807	–	–	807	807
Derivative financial instruments	20	C	–	4	–	4	4
Total financial assets			**1,313**	**577**	**372**	**2,262**	**2,262**
Financial liabilities							
Trade and other financial payables	17	B	(728)	–	–	(728)	(728)
Short-term borrowings	18	D	(509)	–	–	(509)	(509)
Long-term borrowings	18	D	(538)	–	–	(538)	(544)
Lease liabilities	18	E	(119)	–	–	(119)	(119)
Derivative financial instruments	20	C	–	(47)	–	(47)	(47)
Total financial liabilities			**(1,894)**	**(47)**	**–**	**(1,941)**	**(1,947)**

As at 31 July 2021	Notes	Basis for determining fair value	At amortised cost £m	At fair value through profit or loss £m	At fair value through OCI £m	Total carrying value £m	Total fair value £m
Financial assets							
Other investments	14	A	–	4	–	4	4
Other investments	14	F	–	–	7	7	7
Cash and cash equivalents	18	A	289	116	–	405	405
Trade and other financial receivables	16	B/C	689	–	–	689	689
Derivative financial instruments	20	C	–	77	–	77	77
Total financial assets			**978**	**197**	**7**	**1,182**	**1,182**
Financial liabilities							
Trade and other financial payables	17	B	(589)	–	–	(589)	(589)
Short-term borrowings	18	D	(9)	–	–	(9)	(9)
Long-term borrowings	18	D	(1,372)	–	–	(1,372)	(1,429)
Lease liabilities	18	E	(121)	–	–	(121)	(121)
Derivative financial instruments	20	C	–	(3)	–	(3)	(3)
Total financial liabilities			**(2,091)**	**(3)**	**–**	**(2,094)**	**(2,151)**

The fair value of a financial instrument is the price at which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's-length transaction. Fair values have been determined with reference to available market information at the balance sheet date, using the methodologies described below:

A Carrying value is assumed to be a reasonable approximation to fair value for all of these assets and liabilities (Level 1 as defined by IFRS 13 Fair Value Measurement).

B Carrying value is assumed to be a reasonable approximation to fair value for all of these assets and liabilities (Level 2 as defined by IFRS 13 Fair Value Measurement).

C Fair values of derivative financial assets and liabilities and trade receivables held to collect or sell are estimated by discounting expected future contractual cash-flows using prevailing interest rate curves. Amounts denominated in foreign currencies are valued at the exchange rate prevailing at the balance sheet date. These financial instruments are included on the balance sheet at fair value, derived from observable market prices (Level 2 as defined by IFRS 13 Fair Value Measurement).

D Borrowings are carried at amortised cost. Amounts denominated in foreign currencies are valued at the exchange rate prevailing at the balance sheet date. The fair value of borrowings is estimated using quoted prices (Level 1 as defined by IFRS 13).

E Leases are carried at amortised cost. Amounts denominated in foreign currencies are valued at the exchange rate prevailing at the balance sheet date. The fair value of the lease contract is estimated by discounting contractual future cash-flows (Level 2 as defined by IFRS 13).

F The fair value of instruments is estimated by using unobservable inputs to the extent that relevant observable inputs are not available. Unobservable inputs are developed using the best information available in the circumstances, which may include the Group's own data, taking into account all information about market participation assumptions that is reliably available (Level 3 as defined by IFRS 13).

IFRS 13 defines a three-level valuation hierarchy:

Level 1 – quoted prices for similar instruments
Level 2 – directly observable market inputs other than Level 1 inputs
Level 3 – inputs not based on observable market data

22 Commitments

At 31 July 2022, commitments, comprising bonds and guarantees arising in the normal course of business, amounted to £234m (FY2021: £210m), including pension commitments of £56m (FY2021: £54m). In addition, the Group has committed expenditure on capital projects amounting to £15m (FY2021: £4m).

23 Provisions and contingent liabilities

	Trading	Non-headline and legacy			Total
	£m	John Crane, Inc. litigation £m	Titeflex Corporation litigation £m	Other £m	£m
At 31 July 2020	**14**	**231**	**66**	**20**	**331**
Foreign exchange rate movements	(1)	(12)	(4)	(1)	(18)
Provision charged	7	5	–	–	12
Provision released	(4)	–	(13)	–	(17)
Unwind of provision discount	–	1	1	–	2
Utilisation	(6)	(13)	(3)	(2)	(24)
Business combinations	1	–	–	–	1
At 31 July 2021	**11**	**212**	**47**	**17**	**287**
Current liabilities	10	26	8	2	46
Non-current liabilities	1	186	39	15	241
At 31 July 2021	**11**	**212**	**47**	**17**	**287**
Foreign exchange rate movements	1	30	6	2	39
Provision charged	6	6	2	26	40
Provision released	(3)	–	–	–	(3)
Unwind of provision discount	–	2	1	–	3
Utilisation	(4)	(21)	(4)	(2)	(31)
At 31 July 2022	**11**	**229**	**52**	**43**	**335**
Current liabilities	10	34	14	30	88
Non-current liabilities	1	195	38	13	247
At 31 July 2022	**11**	**229**	**52**	**43**	**335**

The John Crane, Inc. and Titeflex Corporation litigation provisions were the only provisions that were discounted; other provisions have not been discounted as the impact would be immaterial.

Trading

The provisions included as trading represent amounts provided for in the ordinary course of business. Trading provisions are charged and released through headline profit.

Warranty provision and product liability

At 31 July 2022, the Group had warranty and product liability provisions of £7m (FY2021: £9m). Warranties over the Group's products typically cover periods of between one and three years. Provision is made for the likely cost of after-sales support based on the recent past experience of individual businesses.

Commercial disputes and litigation in respect of ongoing business activities

The Group has on occasion been required to take legal action to protect its intellectual property and other rights against infringement. It has also had to defend itself against proceedings brought by other parties, including product liability and insurance subrogation claims. Provision is made for any expected costs and liabilities in relation to these proceedings where appropriate, although there can be no guarantee that such provisions (which may be subject to potentially material revision from time to time) will accurately predict the actual costs and liabilities that may be incurred.

Contingent liabilities

In the ordinary course of its business, the Group is subject to commercial disputes and litigation such as government price audits, product liability claims, employee disputes and other kinds of lawsuits, and faces different types of legal issues in different jurisdictions. The high level of activity in the US, for example, exposes the Group to the likelihood of various types of litigation commonplace in that country, such as 'mass tort' and 'class action' litigation, legal challenges to the scope and validity of patents, and product liability and insurance subrogation claims. These types of proceedings (or the threat of them) are also used to create pressure to encourage negotiated settlement of disputes. Any claim brought against the Group (with or without merit) could be costly to defend. These matters are inherently difficult to quantify. In appropriate cases a provision is recognised based on best estimates and management judgement but there can be no guarantee that these provisions (which may be subject to potentially material revision from time to time) will result in an accurate prediction of the actual costs and liabilities that may be incurred. There are also contingent liabilities in respect of litigation for which no provisions are made.

The Group operates in some markets where the risk of unethical or corrupt behaviour is material and has procedures, including an employee 'Ethics Alertline', to help it identify potential issues. Such procedures will, from time to time, give rise to internal investigations, sometimes conducted with external support, to ensure that the Group properly understands risks and concerns and can take steps both to manage immediate issues and to improve its practices and procedures for the future. The Group is not aware of any issues which are expected to generate material financial exposures.

Non-headline and legacy

John Crane, Inc.

John Crane, Inc. (JCI) is one of many co-defendants in numerous lawsuits pending in the United States in which plaintiffs are claiming damages arising from alleged exposure to, or use of, products previously manufactured which contained asbestos. Until 2006, the awards, the related interest and all material defence costs were met directly by insurers. In 2007, JCI secured the commutation of certain insurance policies in respect of product liability. Provision is made in respect of the expected costs of defending known and predicted future claims and of adverse judgements in relation thereto, to the extent that such costs can be reliably estimated.

The JCI products generally referred to in these cases consist of industrial sealing product, primarily packing and gaskets. The asbestos was encapsulated within these products in such a manner that causes JCI to believe, based on tests conducted on its behalf, that the products were safe. JCI ceased manufacturing products containing asbestos in 1985.

JCI continues to actively monitor the conduct and effect of its current and expected asbestos litigation, including the most efficacious presentation of its 'safe product' defence, and intends to continue to resist these asbestos claims based upon this defence. The table below summarises the JCI claims experience over the last 40 years since the start of this litigation:

	Year ended 31 July 2022	Year ended 31 July 2021	Year ended 31 July 2020	Year ended 31 July 2019	Year ended 31 July 2018
JCI claims experience					
Claims against JCI that have been dismissed	306,000	305,000	297,000	285,000	277,000
Claims JCI is currently a defendant in	22,000	22,000	25,000	38,000	43,000
Cumulative final judgements, after appeals, against JCI since 1979	149	149	149	144	140
Cumulative value of awards ($'m) since 1979	175	175	175	168	164

The number of claims outstanding at 31 July 2022 reflected the benefit of 1,000 (FY2021: 8,000) claims being dismissed in the year.

JCI has also incurred significant additional defence costs. The litigation involves claims for a number of allegedly asbestos-related diseases, with awards, when made, for mesothelioma tending to be larger than those for the other diseases. JCI's ability to defend mesothelioma cases successfully is, therefore, likely to have a significant impact on its annual aggregate adverse judgement and defence costs.

John Crane, Inc. litigation provision

The provision is based on past history of JCI claims and well-established tables of asbestos-related disease incidence projections. The provision is determined using advice from asbestos valuation experts, Bates White LLC. The assumptions made in assessing the appropriate level of provision include: the period over which the expenditure can be reliably estimated; the future trend of legal costs; the rate of future claims filed; the rate of successful resolution of claims; and the average amount of judgements awarded. The provision utilised in the period is lower than previous periods, principally due to court closures and trial delays arising from the COVID-19 pandemic. Management believes this reduction in utilisation is temporary until after the effects of the pandemic subside and trial activity returns to pre-pandemic levels.

Established incidence curves can be used to estimate the likely future pattern of asbestos-related disease. However, JCI's claims experience is also significantly impacted by other factors which influence the US litigation environment. These can include: changing approaches on the part of the plaintiffs' bar; changing attitudes amongst the judiciary at both trial and appellate levels in specific jurisdictions which move the balance of risk and opportunity for claimants; and legislative and procedural changes in both the state and federal court systems.

The projections use a limited time horizon on the basis that Bates White LLC consider that there is substantial uncertainty in the asbestos litigation environment. So probable expenditures are not reasonably estimable beyond this time horizon. Asbestos is the longest running mass tort litigation in American history and is constantly evolving in ways that cannot be anticipated. JCI's defence strategy also generates a significantly different pattern of legal costs and settlement expenses from other defendants. Thus JCI is in an extremely rare position, and evidence from other litigation cannot be used to improve the reliability of the projections. A ten-year (FY2021: ten-year) time horizon has been used based on past experience regarding significant changes in the litigation environment that have occurred every few years and on the amount of time taken in the past for some of those changes to impact the broader asbestos litigation environment.

The rate of future claims filed has been estimated using well-established tables of asbestos incidence projections to determine the likely population of potential claimants, and JCI's past experience to determine what proportion of this population will make a claim against JCI. The JCI products generally referred to in claims had industrial and marine applications. As a result, the incidence curve used for JCI projections excludes construction workers, and is a composite of the curves that predict asbestos exposure-related disease from shipyards and other occupations. This is consistent with JCI's litigation history.

The rate of successful resolution of claims and the average amount of any judgements awarded are projected based on the past history of JCI claims, since this is the best available evidence, given JCI's unusual strategy of defending all claims.

The future trend of legal costs is estimated based on JCI's past experience, adjusted to reflect the assumed levels of claims and trial activity, since the number of trials is a key driver of legal costs.

John Crane, Inc. litigation insurance recoveries

While JCI has certain excess liability insurance, JCI has met defence costs directly. The calculation of the provision does not take account of any potential recoveries from insurers.

John Crane, Inc. litigation provision history

The JCI asbestos litigation provision of £229m (FY2021: £212m) is a discounted pre-tax provision using discount rates, being the risk-free rate on US debt instruments for the appropriate period. The deferred tax asset related to this provision is shown within the deferred tax balance (note 6).

The JCI asbestos litigation provision has developed over the last five years as follows:

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m	Year ended 31 July 2020 £m	Year ended 31 July 2019 £m	Year ended 31 July 2018 £m
John Crane, Inc. litigation provision					
Gross provision	258	220	235	257	251
Discount	(29)	(8)	(4)	(20)	(28)
Discounted pre-tax provision	**229**	**212**	**231**	**237**	**223**
Deferred tax	(57)	(54)	(59)	(50)	(48)
Discounted post-tax provision	**172**	**158**	**172**	**187**	**175**
Operating profit charge/(credit)					
Increased provisions for adverse judgements and legal defence costs	24	10	14	7	13
Change in US risk-free rates	(18)	(5)	16	8	(6)
Subtotal – items charged to the provision	6	5	30	15	7
Litigation management, legal fees in connection with litigation against insurers and defence strategy	1	1	1	2	3
Recoveries from insurers	–	(9)	(3)	(11)	–
Total operating profit charge/(credit)	7	(3)	28	6	10
Cash-flow					
Provision utilisation – legal defence costs and adverse judgements	(21)	(13)	(23)	(24)	(27)
Litigation management expense	(1)	–	(1)	(2)	(3)
Recoveries from insurers	–	9	3	11	–
Net cash outflow	(22)	(4)	(21)	(15)	(30)

John Crane, Inc. litigation provision sensitivities

The provision may be subject to potentially material revision from time to time if new information becomes available as a result of future events. There can be no guarantee that the assumptions used to estimate the provision will result in an accurate prediction of the actual costs that will be incurred because of the significant uncertainty associated with the future level of asbestos claims and of the costs arising out of related litigation.

John Crane, Inc. statistical reliability of projections over the ten-year time horizon

In order to evaluate the statistical reliability of the projections, a population of outcomes is modelled using randomised verdict outcomes. This generated a distribution of outcomes with future spend at the 5th percentile of £203m and future spend at the 95th percentile of £268m (FY2021: £191m and £246m, respectively). Statistical analysis of the distribution of these outcomes indicates that there is a 50% probability that the total future spend will fall between £239m and £263m (FY2021: between £209m and £230m), compared to the gross provision value of £258m (FY2021: £220m).

John Crane, Inc. sensitivity of the projections to changes in the time horizon used

If the asbestos litigation environment becomes more volatile and uncertain, the time horizon over which the provision can be calculated may reduce. Conversely, if the environment became more stable, or JCI changed approach and committed to long-term settlement arrangements, the time period covered by the provision might be extended.

The projections use a ten-year time horizon. Reducing the time horizon by one year would reduce the provision by £18m (FY2021: £17m) and reducing it by five years would reduce the provision by £97m (FY2021: £93m).

We consider, after obtaining advice from Bates White LLC, that to forecast beyond ten years requires that the litigation environment remains largely unchanged with respect to the historical experience used for estimating future asbestos expenditures. Historically, the asbestos litigation environment has undergone significant changes more often than every ten years. If one assumed that the asbestos litigation environment would remain unchanged for longer and extended the time horizon by one year, it would increase the pre-tax provision by £15m (FY2021: £14m) and extending it by five years would increase the pre-tax provision by £56m (FY2021: £58m). However, there are also reasonable scenarios that, given certain recent events in the US asbestos litigation environment, would result in no additional asbestos litigation for JCI beyond ten years. At this time, how the asbestos litigation environment will evolve beyond ten years is not reasonably estimable.

John Crane, Inc. contingent liabilities

Provision has been made for future defence costs and the cost of adverse judgements expected to occur. JCI's claims experience is significantly impacted by other factors which influence the US litigation environment. These can include: changing approaches on the part of the plaintiffs' bar; changing attitudes amongst the judiciary at both trial and appellate levels; and legislative and procedural changes in both the state and federal court systems. As a result, whilst the Group anticipates that asbestos litigation will continue beyond the period covered by the provision, the uncertainty surrounding the US litigation environment beyond this point is such that the costs cannot be reliably estimated.

Although the methodology used to calculate the JCI litigation provision can in theory be applied to show claims and costs for longer periods, the Directors consider, based on advice from Bates White LLC, that the level of uncertainty regarding the factors used in estimating future costs is too great to provide for reasonable estimation of the numbers of future claims, the nature of such claims or the cost to resolve them for years beyond the ten-year time horizon.

Titeflex Corporation

Titeflex Corporation, a subsidiary of the Group in the Flex-Tek division, has received a number of claims in the US from insurance companies seeking recompense on a subrogated basis for the effects of damage allegedly caused by lightning strikes in relation to its flexible gas piping product. It has also received product liability claims regarding this product in the US, some in the form of purported class actions. Titeflex Corporation believes that its products are a safe and effective means of delivering gas when installed in accordance with the manufacturer's instructions and local and national codes. However, some claims have been settled on an individual basis without admission of liability. Equivalent third-party products in the US market-place face similar challenges.

Titeflex Corporation litigation provision

The continuing progress of claims and the pattern of settlement, together with recent market-place activity, provide sufficient evidence to recognise a liability in the accounts. Therefore provision has been made for the costs which the Group is expected to incur in respect of future claims to the extent that such costs can be reliably estimated. Titeflex Corporation sells flexible gas piping with extensive installation and safety guidance designed to assure the safety of the product and minimise the risk of damage associated with lightning strikes.

The assumptions made in assessing the appropriate level of provision, which are based on past experience, include: the period over which expenditure can be reliably estimated; the number of future settlements; the average amount of settlements; and the impact of statutes of repose and safe installation initiatives on the expected number of future claims. The assumptions relating to the number of future settlements exclude the use of recent claims history due to the uncertain impact that the COVID-19 lockdown has had on the number of claims.

The provision of £52m (FY2021: £47m) is a discounted pre-tax provision using discount rates, being the risk-free rate on US debt instruments for the appropriate period. The deferred tax asset related to this provision is shown within the deferred tax balance (note 6).

	31 July 2022 £m	31 July 2021 £m
Gross provision	87	69
Discount	(35)	(22)
Discounted pre-tax provision	**52**	**47**
Deferred tax	(12)	(11)
Discounted post-tax provision	**40**	**36**

Titeflex Corporation litigation provision history

A charge of £2m (FY2021: £13m credit) has been recognised by Titeflex Corporation in respect of changes to the estimated cost of future claims from insurance companies seeking recompense for damage allegedly caused by lightning strikes. The higher gross provision value has been driven by foreign exchange rate movements and an increase in the average cost per claim. The increase in the discount factor derives from increasing US dollar discount rates.

Titeflex Corporation litigation provision sensitivities

The significant uncertainty associated with the future level of claims and of the costs arising out of related litigation means that there can be no guarantee that the assumptions used to estimate the provision will result in an accurate prediction of the actual costs that will be incurred. Therefore the provision may be subject to potentially material revision from time to time, if new information becomes available as a result of future events.

The projections incorporate a long-term assumption regarding the impact of safe installation initiatives on the level of future claims. If the assumed annual benefit of bonding and grounding initiatives were 0.5% higher, the provision would be £3m (FY2021: £4m) lower, and if the benefit were 0.5% lower, the provision would be £4m (FY2021: £4m) higher.

The projections use assumptions of future claims that are based on both the number of future settlements and the average amount of those settlements. If the assumed average number of future settlements increased 10%, the provision would rise by £5m (FY2021: £4m), with an equivalent fall for a reduction of 10%. If the assumed amount of those settlements increased 10%, the provision would rise by £4m (FY2021: £3m), also with an equivalent fall for a reduction of 10%.

Other non-headline and legacy provisions

Non-headline provisions comprise all provisions that were disclosed as non-headline items when they were charged to the consolidated income statement. Legacy provisions comprise non-material provisions relating to former business activities and discontinued operations and properties no longer used by Smiths.

These non-material provisions include non-headline reorganisation, disposal indemnities, litigation and arbitration in respect of old products and discontinued business activities, which includes claims received in connection with the disposal of Smiths Medical in the year. Provision is made for the best estimate of the expected expenditure related to the defence and/or resolution of such matters. There is an inherent risk in legal proceedings that the outcome may be unfavourable to the Group, and as such there can be no guarantee that such provisions (which may be subject to potentially material revision from time to time) will be sufficient.

Reorganisation
At 31 July 2022, there were reorganisation provisions of £1m (FY2021: £2m) relating to the various restructuring programmes that are expected to be utilised in the next 18 months.

Property
At 31 July 2022, there were provisions of £10m (FY2021: £11m) related to actual and potential environmental issues for sites currently or previously occupied by Smiths operations.

24 Share capital

	Number of shares	Average number of shares	Issued capital £m	Consideration £m
Ordinary shares of 37.5p each				
Total share capital at 31 July 2020	**396,211,180**	**396,193,310**	**149**	
Issue of new equity shares – exercise of share options	165,934	157,276	–	2
Total share capital at 31 July 2021	**396,377,114**	**396,350,586**	**149**	
Issue of new equity shares – exercise of share options	131,942	125,354	–	2
Share buybacks	(34,152,897)	(9,797,729)	(13)	(511)
Total share capital at 31 July 2022	**362,356,159**	**386,678,211**	**136**	

Share capital structure
As at 31 July 2022, the Company's issued share capital was 362,356,159 ordinary shares with a nominal value of 37.5p per share. All of the issued share capital was in free issue and all issued shares are fully paid.

The Company's ordinary shares are listed and admitted to trading on the Main Market of the London Stock Exchange. The Company has an American Depositary Receipt (ADR) programme and one ADR equates to one ordinary share. As at 31 July 2022, 4,274,704 ordinary shares were held by the nominee of the programme in respect of the same number of ADRs in issue.

The holders of ordinary shares are entitled to receive the Company's Reports and Accounts, to attend and speak at General Meetings of the Company, to appoint proxies and to exercise voting rights. None of the ordinary shares carry any special rights with regard to control of the Company or distributions made by the Company.

There are no known agreements relating to, or restrictions on, voting rights attached to the ordinary shares (other than the 48 hour cut-off for casting proxy votes prior to a General Meeting). There are no restrictions on the transfer of shares, and there is no requirement to obtain approval for a share transfer. There are no known arrangements under which financial rights are held by a person other than the holder of the ordinary shares. There are no known limitations on the holding of shares.

Powers of Directors
The Directors are authorised to issue and allot shares and to buy back shares subject to receiving shareholder approval at the General Meeting. Such authorities were granted by shareholders at the 2021 Annual General Meeting and the buy back authority was superseded by the shareholder authority provided at the General Meeting held in November 2021. At the 2022 AGM, it will be proposed that the Directors be granted new authorities to allot and buy back shares.

Share buybacks
As at 16 September 2022 (the latest practicable date for inclusion in this report), the Company had an unexpired authority to repurchase ordinary shares up to a maximum of 59m ordinary shares (FY2021: 40m). As at 16 September 2022, the Company did not hold any shares in treasury. Any ordinary shares purchased may be cancelled or held in treasury.

In connection with the sale of Smiths Medical to ICU Medical, Inc. (see note 27 for details), and in the light of our strong balance sheet and cash-flows, the Group announced that it intended to return an amount representing 55% of the initial cash proceeds (equating to an aggregate purchase price of up to $1bn or £742m) to shareholders in the form of a Share Buyback Programme. All shares purchased under the Programme will be cancelled. This Programme was initiated on 19 November 2021 as announced to the London Stock Exchange on 11 November 2021 and following shareholder approval at the General Meeting held on 17 November 2021.

A total number of 34,281,929 ordinary shares of 37.5 pence each were repurchased during the period, for a total consideration of £512,796,999, of which 129,032 shares with a value of £1,972,602 were yet to settle and be cancelled. These 34,281,929 shares represented 9.46% of the called up ordinary share capital as at 31 July 2022. A further 3,361,599 ordinary shares have been repurchased during the period of 1 August 2022 to 16 September 2022. All repurchased shares have been cancelled with the exception of 128,919 shares that were yet to settle and be cancelled as at 16 September 2022. Since 1 August 2022, the number of shares in issue has reduced by 3,361,712 as at 16 September 2022.

Employment share schemes
Shares acquired through Company share schemes and plans rank pari passu with the shares in issue and have no special rights. The Company operates an Employee Benefit Trust, with an independent trustee, to hold shares pending employees becoming entitled to them under the Company's share schemes and plans. On 31 July 2022, the trust held 618,662 (FY2021: 326,364) ordinary shares in the Company. The trust waived its dividend entitlement on its holding during the year, and the trust abstains from voting any shares held at General Meetings.

25 Dividends

The following dividends were declared and paid in the period:

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Ordinary final dividend of 26.0p (FY2021: 24.0p) paid 19 November 2021	103	94
Ordinary delayed interim dividend of nil (FY2021: 11.0p) paid 19 November 2021	–	44
Ordinary interim dividend of 12.3p (FY2021: 11.7p) paid 13 May 2022	47	47
	150	**185**

In the current year a total dividend of 38.3p has been paid, comprising a final dividend of 26.0p paid in respect of FY2021 and an interim dividend of 12.3p paid in respect of FY2022. In the prior year a total dividend of 46.7p was paid, comprising a delayed interim dividend of 11.0p and a final dividend of 24.0p paid in respect of FY2020 and an interim dividend of 11.7p paid in respect of FY2021.

The final dividend for the year ended 31 July 2022 of 27.3p per share was recommended by the Board on 22 September 2022 and will be paid to shareholders on 18 November 2022, subject to approval by the shareholders. This dividend is payable to all shareholders on the register of members at 6.00pm on 21 October 2022 (the record date).

Waiver of dividends

The following waived all dividends payable in the year, and all future dividends, on their shareholdings in the Company:
- Numis Nominees Limited (Smiths Industries Employee Share Trust)

26 Reserves

Retained earnings include the value of Smiths Group plc shares held by the Smiths Industries Employee Benefit Trust. In the year the Company issued nil (FY2021: 800,606) shares to the Trust, and the Trust purchased 1,069,998 shares (FY2021: 1,126,970 shares) in the market for a consideration of £16m (FY2021: £16m). At 31 July 2022, the Trust held 618,662 (FY2021: 326,364) ordinary shares.

Other reserves comprise the capital redemption reserve, revaluation reserve and merger reserve, which arose from share repurchases, revaluations of property, plant and equipment, and merger accounting for business combinations before the adoption of IFRS, respectively.

Capital management

Capital employed comprises total equity adjusted for goodwill recognised directly in reserves, net retirement benefit-related assets and liabilities, net litigation provisions relating to non-headline items and net debt. The efficiency of the allocation of capital to the divisions is monitored through the return on capital employed (ROCE). This ratio is calculated over a rolling 12-month period and is the percentage that headline operating profit comprises of monthly average capital employed. In FY2022 ROCE was 14.2% (FY2021: 13.2%); see note 29.

Capital structure is based on the Directors' judgement of the balance required to maintain flexibility, whilst achieving an efficient cost of capital.

The FY2022 ratio of net debt to headline EBITDA of 0.3 (FY2021: 1.6) is within the Group's stated policy of 2.0 or less over the medium term. The Group's robust balance sheet and record of strong cash generation are more than able to fund immediate investment needs and legacy obligations. See note 29 for the definition of headline EBITDA and the calculation of this ratio.

As part of its capital management, the Group maintains a solid investment grade credit rating to ensure access to the widest possible sources of financing and to optimise the resulting cost of capital. At 31 July 2022, the Group had a credit rating of BBB+/Baa2 (FY2021: BBB+/Baa2) with Standard & Poor's and Moody's respectively.

The Board has a progressive dividend policy for future pay-outs, with the aim of increasing dividends in line with the long-term underlying growth in earnings. In setting the level of dividend payments, the Board will take into account prevailing economic conditions and future investment plans, along with the objective to maintain a minimum dividend cover of at least two times.

Hedge reserve

The hedge reserve on the balance sheet records the cumulative gain or loss on designated hedging instruments, and comprises:

	31 July 2022 £m	31 July 2021 £m
Net investment hedge reserve (net of £8m of deferred tax (FY2021: £8m)	(205)	(230)
Cash-flow hedge reserve	3	2
	(202)	**(228)**

See transactional currency exposure risk management disclosures in note 19 for additional details of cash-flow hedges, and translational currency exposure risk management disclosure also in note 19 for additional details of net investment hedges.

Non-controlling interest

The Group has recorded non-controlling interests of £22m (FY2021: £21m), of which the most significant balance is in John Crane Japan Inc., which represented £20m (FY2021: £20m) of the total non-controlling interests.

The non-controlling interest in John Crane Japan Inc. represents a 30% interest. John Crane Japan Inc. generated operating profits of £5m in the period (FY2021: £5m), and cash inflows from operating activities of £5m (FY2021: £6m). It paid dividends of £1m (FY2021: £2m) and tax of £1m (FY2021: £3m). At 31 July 2022, the company contributed £57m (FY2021: £57m) of net assets to the Group.

27 Discontinued operations and businesses held for sale

Following the Board decision in July 2021 to pursue a sale process, the Smiths Medical business was classified as a discontinued operation and a business held for sale. On 8 September 2021, the Group announced that it had agreed the sale of Smiths Medical to ICU Medical, Inc., and the approval of Smiths shareholders was received at the General Meeting on 17 November 2021.

The sale was completed on 6 January 2022 and the results of the discontinued operation and the effect of the disposal on the financial position of the Group were as follows:

Discontinued operations

The financial performance of the Smiths Medical business in the current and prior years is presented below:

	Year ended 31 July 2022			Year ended 31 July 2021		
	Headline £m	Non-headline (note 3) £m	Total £m	Headline £m	Non-headline (note 3) £m	Total £m
Revenue	356	–	356	849	–	849
Direct materials, labour, production and distribution overheads	(193)	–	(193)	(385)	–	(385)
Selling costs	(46)	–	(46)	(117)	–	(117)
Administrative expenses	(51)	(47)	(98)	(170)	(79)	(249)
Operating costs	(290)	(47)	(337)	(672)	(79)	(751)
Operating profit	**66**	**(47)**	**19**	**177**	**(79)**	**98**
Finance costs	(1)	(22)	(23)	(1)	50	49
Gain on sale of discontinued operation	–	1,036	1,036	–	–	–
Taxation	(16)	6	(10)	(42)	23	(19)
Profit from discontinued operations	**49**	**973**	**1,022**	**134**	**(6)**	**128**

Interest capitalised as part of the costs of Smiths Medical development projects amounted to £1m (FY2021: £3m). £nil (FY2021: £1m) of tax relief has been recognised as current tax relief in the period. The gain on sale of the Smiths Medical discontinued operations qualified for the Substantial Shareholding Exemption and consequently was not subject to corporation tax.

Additional segmental information for discontinued operations

Headline operating profit for discontinued operations was stated after charging share-based payments £2m (FY2021: £1m).

Revenue for the Smiths Medical discontinued operation is analysed by the following product lines: Infusion Systems £116m (FY2021: £303m), Vascular Access £134m (FY2021: £272m) and Vital Care/Other £106m (FY2021: £274m).

Revenue by destination for the Smiths Medical for discontinued operations is analysed as follows: Americas £176m (FY2021: £456m), Europe, Middle East & Africa £91m (FY2021: £228m), and Asia-Pacific £89m (FY2021: £165m). Revenue by destination has been selected as the basis for attributing revenue to geographical areas as this is the attribution used by management to review the performance of the business.

Revenue by destination attributable to the United Kingdom was £12m (FY2021: £26m). Revenue earned in the United States of America was material totalling £161m (FY2021: £411m).

Cash-flow from discontinued operations

Cash-flows from discontinued operations included in the consolidated cash-flow statement are as follows:

	31 July 2022 £m	31 July 2021 represented* £m
Net cash inflow from operating activities	47	163
Net cash-flow used in investing activities	(17)	(67)
Net cash-flow used in financing activities	(14)	(68)
Net increase in cash and cash equivalents	**16**	**28**
Opening cash and cash equivalents in disposal group	48	20
Foreign exchange movements	(7)	–
Cash and cash equivalents disposed of	**(57)**	–
Cash and cash equivalents at close of period	**–**	**48**

* £15m of intra-group royalty charges paid by discontinued operations to continuing operations in FY2021, that were previously netted down, have been represented on a gross up basis within net cash inflow from operating activities and net cash-flow used in financing activities, as this represents a complete view of the operating cash flows attributable to Smiths Medical.

Effect of disposal on the financial position of the Group

	Year ended 31 July 2022 £m
Intangible assets	695
Property, plant and equipment	170
Right of use assets	64
Inventories	166
Deferred tax assets	20
Current tax receivable	3
Trade and other receivables	110
Cash and cash equivalents	57
Financial derivatives	4
Lease liabilities	(41)
Trade and other payables	(167)
Current tax payable	(13)
Deferred tax liabilities	(56)
Retirement benefit obligations	(5)
Provisions	(39)
Net assets disposed of	**968**
Consideration received:	
Cash and cash equivalents	1,421
Transaction costs	(31)
Cash and cash equivalents, net of transaction costs	1,390
ICU Medical, Inc shares	426
Deferred contingent consideration – contingent on ICU Medical, Inc future share price:	
– Fair value at date of disposal	30
– Movement in fair value to 31 July 2022	(11)
	19
Separation expenses – arising from contractual and commercial obligations due to the separation recognised in year	(32)
Gain on sale before reclassification of foreign currency translation reserve	**835**
Exchange movements recycled to the income statement	196
Cash-flow hedge reserve recycled to the income statement	5
Gain on sale of discontinued operation	**1,036**
Net cash inflow arising on disposal:	
Consideration received in cash and cash equivalents	1,421
Transaction costs and separation expenses paid in period	(33)
Less cash and cash equivalents disposed of	(57)
	1,331

28 Cash-flow

Cash-flow from operating activities

	Year ended 31 July 2022			Year ended 31 July 2021 represented*		
	Headline £m	Non-headline £m	Total £m	Headline £m	Non-headline £m	Total £m
Operating profit – continuing operations	417	(300)	117	372	(46)	326
– discontinued operations	66	(47)	19	177	(79)	98
Amortisation of intangible assets	10	51	61	14	53	67
Impairment of intangible assets	–	4	4	1	52	53
Impairment of tangible assets	–	–	–	–	6	6
Impairment of investment within discontinued operations	–	14	14	–	–	–
Depreciation of property, plant and equipment	38	–	38	39	1	40
Depreciation of right of use assets	30	–	30	32	–	32
(Gain)/loss on disposal of property, plant and equipment	(2)	–	(2)	1	–	1
Share-based payment expense	13	–	13	13	–	13
Retirement benefits**	5	207	212	6	(23)	(17)
Distribution from trading investment	–	–	–	5	–	5
Recycling of cash-flow hedge reserve	–	–	–	(5)	–	(5)
Decrease/(increase) in inventories	(173)	4	(169)	62	4	66
Decrease/(increase) in trade and other receivables	(87)	4	(83)	(14)	4	(10)
Increase/(decrease) in trade and other payables	131	(2)	129	46	(10)	36
Increase/(decrease) in provisions	(1)	22	21	(4)	(26)	(30)
Cash generated from operations	**447**	**(43)**	**404**	**745**	**(64)**	**681**
Interest paid	(51)	–	(51)	(40)	–	(40)
Interest received	13	1	14	2	1	3
Tax paid	(88)	–	(88)	(109)	–	(109)
Net cash inflow from operating activities	**321**	**(42)**	**279**	**598**	**(63)**	**535**
– continuing operations*	**274**	**(42)**	**232**	**430**	**(58)**	**372**
– discontinued operations*	**47**	**–**	**47**	**168**	**(5)**	**163**

* £15m of intra-group royalty charges paid by discontinued operations to continuing operations in FY2021 have been represented as cash inflows from discontinued operations, as this represents a complete view of the operating cash flows attributable to Smiths Medical.

** The retirement benefits non-headline operating activities principally relate to employer contributions to legacy defined benefit and post-retirement healthcare plans.

Headline cash measures – continuing operations

The Group measure of headline operating cash excludes interest and tax, and includes capital expenditure supporting organic growth. The Group uses operating cash-flow for the calculation of cash conversion and free cash-flow for management of capital purposes. See note 29 for additional details.

The table below reconciles the Group's net cash-flow from operating activities to headline operating cash-flow and free cash-flow:

	Year ended 31 July 2022			Year ended 31 July 2021		
	Headline £m	Non-headline £m	Total £m	Headline £m	Non-headline £m	Total £m
Net cash inflow from operating activities	**274**	**(42)**	**232**	**430**	**(58)**	**372**
Include:						
Expenditure on capitalised development, other intangible assets and property, plant and equipment	(71)	–	(71)	(62)	–	(62)
Repayment of lease liabilities	(34)	–	(34)	(33)	–	(33)
Disposals of property, plant and equipment	3	–	3	–	–	–
Investment in financial assets relating to operating activities and pensions financing outstanding at the balance sheet date	–	–	–	7	–	7
Free cash-flow			**130**			**284**
Exclude:						
Investment in financial assets relating to operating activities and pensions financing outstanding at the balance sheet date	–	–	–	(7)	–	(7)
Repayment of lease liabilities	34	–	34	33	–	33
Interest paid	46	–	46	24	–	24
Interest received	(13)	–	(13)	(2)	–	(2)
Tax paid	79	–	79	96	–	96
Operating cash-flow	**318**	**(42)**	**276**	**486**	**(58)**	**428**

Headline cash conversion

Headline operating cash conversion for continuing operations is calculated as follows:

	Year ended 31 July 2022			Year ended 31 July 2021		
	As reported £m	**Restructuring costs £m**	**Pro-forma excluding restructuring costs £m**	As reported £m	Restructuring costs £m	Pro-forma excluding restructuring costs £m
Headline operating profit	417	–	417	372	21	393
Headline operating cash-flow	318	14	332	486	24	510
Headline operating cash conversion	**76%**		**80%**	**130%**		**129%**

Reconciliation of free cash-flow to net movement in cash and cash equivalents:

	Year ended 31 July 2022 £m	Year ended 31 July 2021 £m
Free cash-flow	**130**	**284**
Investment in financial assets and acquisition of businesses	–	(83)
Disposal of businesses and discontinued operations	1,331	–
Other net cash-flows used in financing activities (note: repayment of lease liabilities is included in free cash-flow)	(937)	(138)
Net decrease in cash and cash equivalents for discontinued operations	16	28
Net increase/(decrease) in cash and cash equivalents	**540**	**91**

29 Alternative performance measures and key performance indicators

The Group uses several alternative performance measures ('APMs') in order to provide additional useful information on underlying trends and the performance and position of the Group. APMs are non-GAAP and not defined by IFRS; therefore, they may not be directly comparable with other companies' APMs and should not be considered a substitute for IFRS measures.

The Group uses these measures, which are common across the industry, for planning and reporting purposes, to enhance the comparability of information between reporting periods and business units. The measures are also used in discussions with the investment analyst community and by credit rating agencies.

We have identified and defined the following key measures which are used within the business by management to assess the performance of the Group's businesses:

APM term	Definition and purpose
Capital employed	Capital employed is a non-statutory measure of invested resources. It comprises statutory net assets and is adjusted as follows: - to add goodwill recognised directly in reserves in respect of subsidiaries acquired before 1 August 1998; - to eliminate the Group's investment in ICU Medical, Inc equity and deferred consideration contingent on the future share price performance of ICU Medical, Inc; and - to eliminate post-retirement benefit assets and liabilities and non-headline litigation provisions related to John Crane, Inc. and Titeflex Corporation, both net of deferred tax, and net debt. It is used to monitor capital allocation within the Group. See below for a reconciliation from net assets to capital employed.
Capital expenditure	Comprises additions to property, plant and equipment, capitalised development and other intangible assets, excluding assets acquired through business combinations, see note 1 for an analysis of capital expenditure. This measure quantifies the level of capital investment into ongoing operations.
Divisional headline operating profit ('DHOP')	DHOP comprises divisional earnings before central costs, finance costs and taxation. DHOP is used to monitor divisional performance. A reconciliation of DHOP to operating profit is shown in note 1.
Free cash-flow	Free cash-flow is calculated by adjusting the net cash inflow from operating activities to include capital expenditure, the repayment of lease liabilities, the proceeds from the disposal of property, plant and equipment and the investment in financial assets relating to operating activities and pensions financing outstanding at the balance sheet date. The measure shows cash generated by the Group before discretionary expenditure on acquisitions and returns to shareholders. A reconciliation of free cash-flow is shown in note 28.
Gross debt	Gross debt is total borrowings (bank, bonds and lease liabilities). It is used to provide an indication of the Group's overall level of indebtedness. See note 18 for an analysis of gross debt.
Headline	The Group has defined a 'headline' measure of performance that excludes material non-recurring items or items considered non-operational/trading in nature. Items excluded from headline are referred to as non-headline items. This measure is used by the Group to measure and monitor performance excluding material non-recurring items or items considered non-operational. See note 3 for an analysis of non-headline items.
Headline EBITDA	EBITDA is a widely used profit measure, not defined by IFRS, being earnings before interest, taxation, depreciation and amortisation. Following the completion of the sale of Smiths Medical, headline EBITDA for FY2022 has been presented on a continuing operations basis. A reconciliation of headline operating profit to headline EBITDA is shown in the note below.
Headline EBITDA before restructuring costs	Headline EBITDA, as defined above, is adjusted to exclude restructuring costs from the Group's strategic restructuring programme which commenced in FY2020. Following the completion of the sale of Smiths Medical, headline EBITDA before restructuring costs for FY2022 has been presented on a continuing operations basis. A reconciliation of headline EBITDA to headline EBITDA before restructuring costs and write-downs is shown in the note below.

NOTES TO THE ACCOUNTS

Headline operating profit excluding restructuring	Headline operating profit is adjusted for strategic restructuring programme costs and write-downs. See note 2 for a reconciliation. This measure of profitability is used by the Group to measure and monitor performance.
Net debt	Net debt is total borrowings (bank, bonds and lease liabilities) less cash balances and derivatives used to manage the interest rate risk and currency profile of the debt. This measure is used to provide an indication of the Group's overall level of indebtedness and is widely used by investors and credit rating agencies. See note 18 for an analysis of net cash/(debt).
Non-headline	The Group has defined a 'headline' measure of performance that excludes material non-recurring items or items considered non-operational/trading in nature. Items excluded from headline are referred to as non-headline items. This is used by the Group to measure and monitor material non-recurring items or items considered non-operational. See note 3 for an analysis of non-headline items.
Operating cash-flow	Comprises free cash-flow and excludes cash-flows relating to the repayment of lease liabilities, interest and taxation. The measure shows how cash is generated from operations in the Group. A reconciliation of operating cash-flow is shown in note 28.
Operating profit	Operating profit is earnings before finance costs and tax. A reconciliation of operating profit to profit before tax is shown on the income statement on page 103. This common measure is used by the Group to measure and monitor performance.
Return on capital employed ('ROCE')	Smiths ROCE is calculated over a rolling 12-month period and is the percentage that headline operating profit represents of the monthly average capital employed on a rolling 12-month basis. This measure of return on invested resources is used to monitor performance and capital allocation within the Group. See below for Group ROCE and note 1 for divisional headline operating profit and divisional capital employed.

The key performance indicators ('KPIs') used by management to assess the performance of the Group's businesses are as follows:

KPI term	Definition and purpose
Dividend cover – headline	Dividend cover is the ratio of headline earnings per share (see note 5) to dividend per share (see note 25). This commonly used measure indicates the number of times the dividend in a financial year is covered by headline earnings.
Earnings per share ('EPS') growth	EPS growth is the growth in headline basic EPS (see note 5), on a reported basis. EPS growth is used to measure and monitor performance.
Free cash-flow (as a % of operating profit)	This measure is defined as free cash-flow divided by headline operating profit averaged over a three-year performance period. This cash generation measure is used by the Group as a performance measure for remuneration purposes.
Greenhouse Gas Emissions (GHG) reduction	GHG reduction is calculated as the percentage change in normalised Scope 1 & 2 GHG emissions. Normalised is calculated as tCO_2e per £million of revenue. This measure is used to monitor environmental performance.
Gross Vitality	Gross Vitality is calculated as the percentage of revenue derived from new products and services launched in the last five years. This measure is used to monitor the effectiveness of the Group's new product development and commercialisation.
My Say engagement score	The overall score in our My Say employee engagement survey. The bi-annual survey is undertaken Group-wide. This measure is used by the Group to monitor employee engagement.
Operating cash conversion	Comprises headline operating cash-flow, excluding restructuring costs, as a percentage of headline operating profit. This measure is used to show the proportion of headline operating profit converted into cash-flow from operations before investment, finance costs, non-headline items and taxation. The calculation is shown in note 28.
Operating profit margin	Operating profit margin is calculated by dividing headline operating profit by revenue. This measure is used to monitor the Group's ability to drive profitable growth and control costs.
Organic growth	Organic growth adjusts the movement in headline performance to exclude the impact of foreign exchange, restructuring costs and acquisitions. Organic growth is used by the Group to aid comparability when monitoring performance.
Organic revenue growth (remuneration)	Organic revenue growth (remuneration) is compounded annualised growth in revenue calculated on an underlying basis. The measure used for remuneration differs from organic revenue growth in that it is calculated on a compounded annualised basis. This measure has historically been used by the Group for aligning remuneration with business performance.
Percentage of senior leadership positions taken by females	Percentage of senior leadership positions taken by females is calculated as the percentage of senior leadership roles (G14+ group) held by females. This measure is used by the Group to monitor diversity performance.
R&D cash costs as a % of sales	This measure is defined as the cash cost of research and development activities as a percentage of revenue. Innovation is an important driver of sustainable growth for the Group and this measures our investment in research and development to drive innovation.
Ratio of capital expenditure to depreciation and amortisation	Represents the amount of capital expenditure as a proportion of the depreciation and amortisation charge for the period. This measure shows the level of reinvestment into operations.
Recordable Incident Rate (RIR)	Recordable Incident Rate is calculated as the number of recordable incidents – where an incident requires medical attention beyond first aid – per 100 colleagues, per year across Smiths. This measure is used by the Group to monitor health and safety performance.

NOTES TO THE ACCOUNTS

Capital employed

Capital employed is a non-statutory measure of invested resources. It comprises statutory net assets adjusted to add goodwill recognised directly in reserves in respect of subsidiaries acquired before 1 August 1998 of £478m (FY2021: £787m), to eliminate the Group's investment in ICU Medical, Inc equity and deferred consideration contingent on the future share price performance of ICU Medical, Inc and to eliminate post-retirement benefit assets and liabilities and non-headline litigation provisions related to John Crane, Inc. and Titeflex Corporation, both net of related tax, and net debt.

	Notes	31 July 2022 £m	31 July 2021 £m
Net assets		2,721	2,423
Adjust for:			
Goodwill recognised directly in reserves		478	787
Retirement benefit assets and obligations	8	(194)	(413)
Tax related to retirement benefit assets and obligations		57	108
John Crane, Inc. litigation provisions and related tax	23	172	158
Titeflex Corporation litigation provisions and related tax	23	40	36
Investment in ICU Medical, Inc equity	14	(364)	–
Deferred contingent consideration	14	(19)	–
Net debt (FY2021: includes £4m of net cash in discontinued operations)	18	150	1,018
Capital employed		**3,041**	**4,117**

Return on capital employed ('ROCE')

	Notes	Year ended 31 July 2022 £m	Year ended 31 July 2021 represented* £m
Headline operating profit for previous 12 months – continuing operations		417	372
Restructuring costs		–	21
Headline operating profit before restructuring costs – continuing operations		417	393
Average capital employed – continuing operations (excluding investment in ICU Medical, Inc equity)	1	2,940	2,830
ROCE		**14.2%**	**13.9%**

* Following the completion of the sale of Smiths Medical, ROCE for 31 July 2021 has been represented to exclude restructuring costs and discontinued operations from headline operating profit and average capital employed. The 31 July 2021 figures have been represented to aid the period on period comparability for this forward-looking measure.

Credit metrics

Smiths Group monitors the ratio of net debt to headline EBITDA as part of its management of credit ratings; see note 26 for details. This ratio is presented for the whole Group, including discontinued operations, and is calculated as follows:

Headline earnings before interest, tax, depreciation and amortisation (headline EBITDA)

	Notes	Year ended 31 July 2022 Continuing operations £m	Year ended 31 July 2021 Total operations* £m
Headline operating profit		**417**	**372**
Headline operating profit of discontinued operations	27	–	177
Exclude:			
– depreciation of property, plant and equipment	12	38	40
– depreciation of right of use assets	13	30	32
– amortisation and impairment of development costs	10	3	7
– amortisation of software, patents and intellectual property	10	7	7
Headline EBITDA		**495**	**635**
Add back: restructuring costs and write-downs (FY2021 comparative includes £9m in discontinued operations)	2	–	30
Headline EBITDA before restructuring costs and write-downs		**495**	**665**

Ratio of net debt to headline EBITDA – total Group including discontinued operations

	Notes	Year ended 31 July 2022 Continuing operations £m	Year ended 31 July 2021 Total operations* £m
Headline EBITDA		495	635
Net debt (FY2021 comparative includes £4m of net cash in discontinued operations)	18	150	1,018
Ratio of net debt to headline EBITDA		**0.3**	**1.6**

* The figures for the comparative period in the credit metrics tables above include discontinued operations.

30 Post Balance Sheet Events

Details of the proposed final dividend announced since the end of the reporting period are given in note 25.

31 Audit exemption taken for subsidiaries

The following subsidiaries are exempt from the requirements of the Companies Act 2006 relating to the audit of individual accounts by virtue of Section 479A of that Act for FY2022.

Company name	Company number	Company name	Company number
EIS Group Plc	61407	Smiths Detection Investments Limited	5146644
Flexibox International Limited	394688	Smiths Finance Limited	7888063
Flex-Tek Group Limited	11545405	Smiths Group Finance EU Limited	10440573
Graseby Limited	894638	Smiths Group Finance US Limited	10440608
SI Properties Limited	160881	Smiths Group Innovation Limited	10953689
SITI 1 Limited	4257042	Smiths Interconnect Group Limited	6641403
Smiths Detection Group Limited	5138140	Smiths Pensions Limited	2197444

UNAUDITED GROUP FINANCIAL RECORD 2018-2022

Unaudited Group financial record 2018-2022

The headline income statement metrics shown below for the year ended 31 July 2018 has been represented to show the results of Smiths Medical as a discontinued operation.

		Year ended 31 July 2022 £m	Year ended 31 July 2021 £m	Year ended 31 July 2020 £m	Year ended 31 July 2019 £m	Year ended 31 July 2018 £m
Income statement metrics – headline*						
Continuing operations	Revenue	2,566	2,406	2,548	2,498	2,328
	Headline operating profit	417	372	327	427	388
	Headline profit before tax	376	332	278	376	333
Discontinued operations	Revenue	356	849	918	874	869
	Headline operating profit	66	177	184	147	156
	Headline profit before tax	65	176	180	144	154
Income statement metrics – statutory**						
Revenue		2,566	2,406	2,548	2,498	2,328
Operating profit		117	326	241	326	342
Profit before taxation		103	240	133	304	287
Profit for the year		1,035	285	267	227	279
Balance sheet metrics***						
Net debt		(150)	(1,018)	(1,141)	(1,197)	(893)
Shareholders' equity		2,699	2,402	2,373	2,360	2,272
Average capital employed		2,940	4,165	4,315	3,972	3,735
Ratios***						
Headline operating profit: revenue (%)		16.5	16.9	14.7	17.0	17.0
Headline effective tax rate (%)		27.2	27.1	26.2	25.9	25.8
Return on capital employed (%)		14.2	13.2	11.8	14.4	14.6
Return on shareholders' funds (%)		10.0	11.6	10.8	12.3	12.1
Cash-flow metrics***						
Headline operating cash		318	630	575	474	538
Headline operating cash conversion (%)		76	125	123	83	99
Free cash-flow		130	383	273	234	302
Free cash-flow per share (p)		35.9	96.6	68.9	59.1	76.3
Earnings per share***						
Headline earnings per share (p)		82.5	93.1	84.8	96.8	90.7
Dividends and dividend cover***						
Pence per share		39.60	37.70	35.00	45.90	44.55
Headline dividend cover		2.1	2.5	2.4	2.1	2.0

* The headline income statement metrics in the above five-year record have been presented to reflect the reclassification of the Smiths Medical business as a discontinued operation and the Group's current accounting policy of including restructuring and pension administration costs within headline profit. The discontinued operations comparatives for the year ended 31 July 2018 have also been restated for the adoption of IFRS 15.

** The statutory income statement metrics are presented based on continuing operations for both the current and comparative years.

*** Balance sheet metrics, ratios, cash-flow metrics, earnings per share, dividend cover and number of employees are presented based on both continuing and discontinued operations for all years.

UNAUDITED US DOLLAR PRIMARY STATEMENTS

Unaudited supplementary consolidated income statement – US dollar translation

	Year ended 31 July 2022			Year ended 31 July 2021		
	Headline $m	Non-headline (note 3) $m	Total $m	Headline $m	Non-headline (note 3) $m	Total $m
CONTINUING OPERATIONS						
Revenue	3,377	–	3,377	3,264	–	3,264
Operating costs	(2,828)	(395)	(3,223)	(2,760)	(62)	(2,822)
Operating profit/(loss)	549	(395)	154	**504**	**(62)**	**442**
Interest receivable	18	–	18	12	–	12
Interest payable	(72)	–	(72)	(66)	–	(66)
Other financing gains/(losses)	–	26	26	–	(71)	(71)
Other finance charges – retirement benefits	–	9	9	–	8	8
Finance costs	(54)	35	(19)	(54)	(63)	(117)
Profit/(loss) before taxation	495	(360)	135	**450**	**(125)**	**325**
Taxation	(137)	18	(119)	(130)	18	(112)
Profit/(loss) for the year	358	(342)	16	**320**	**(107)**	**213**
DISCONTINUED OPERATIONS						
Profit on discontinued operations	64	1,280	1,344	182	(8)	174
PROFIT/(LOSS) FOR THE YEAR	422	938	1,360	**502**	**(115)**	**387**
Profit/(loss) for the year attributable to:						
Smiths Group shareholders – continuing operations	355	(342)	13	319	(107)	212
Smiths Group shareholders – discontinued operations	64	1,280	1,344	182	(8)	174
Non-controlling interests	3	–	3	1	–	1
				502	(115)	387
EARNINGS PER SHARE						
Basic			351.5c			97.2c
Basic – continuing			3.7c			53.4c
Diluted			350.0c			96.7c
Diluted – continuing			3.7c			53.1c

Assets and liabilities have been translated into US dollars at the exchange rate at the date of that balance sheet and income, expenses and cash-flows are translated at average exchange rates for the period. This reflects the accounting approach that Smiths Group plc would use if the Group moved to reporting in US dollars without making any changes to its Group structure or financing arrangements.

UNAUDITED US DOLLAR PRIMARY STATEMENTS

Unaudited supplementary consolidated statement of comprehensive income – US dollar translation

	Year ended 31 July 2022 $m	Year ended 31 July 2021 represented* $m
PROFIT FOR THE YEAR	1,360	387
Other comprehensive income (OCI):		
OCI which will not be reclassified to the income statement:		
Re-measurement of post-retirement benefits assets and obligations	(22)	18
Taxation on post-retirement benefits movements	–	(8)
Fair value movements on financial assets at fair value through OCI	(83)	5
	(105)	15
OCI which will be reclassified and reclassifications:		
Fair value gains/(losses) and reclassification adjustments:		
– deferred in the year on cash-flow and net investment hedges	(108)	111
– reclassified to income statement on cash-flow and net investment hedges	7	3
	(101)	114
Foreign exchange (FX) movements net of recycling:		
Exchange losses/(gains) on translation of foreign operations	363	(32)
Exchange gains recycled to the income statement on disposal on business	(258)	–
	105	(32)
Total other comprehensive income, net of taxation	(101)	97
Total comprehensive income	1,259	484
Attributable to:		
Smiths Group shareholders	1.258	484
Non-controlling interests	1	–
	1,259	484

* The comparative year has been represented to include 'Fair value movements on financial assets at fair value through OCI' within the 'OCI which will not be reclassified to the income statement' subtotal rather than within the 'OCI which will be reclassified and reclassifications' subtotal. This reclassification has no impact on total other comprehensive income in the comparative year ended 31 July 2021.

Unaudited supplementary consolidated balance sheet – US dollar translation

	31 July 2022 $m	31 July 2021 $m
NON-CURRENT ASSETS		
Intangible assets	1,933	2,082
Property, plant and equipment	296	295
Right of use assets	129	150
Financial assets – other investments	481	15
Retirement benefit assets	376	759
Deferred tax assets	116	128
Trade and other receivables	84	82
Financial derivatives	–	104
	3,415	**3,615**
CURRENT ASSETS		
Inventories	694	530
Current tax receivable	61	105
Trade and other receivables	897	876
Cash and cash equivalents	1,286	563
Financial derivatives	5	3
Assets held for sale	–	1,728
	2,943	**3,805**
TOTAL ASSETS	6,358	**7,420**
CURRENT LIABILITIES		
Financial liabilities		
– borrowings	(620)	(13)
– lease liabilities	(35)	(38)
– financial derivatives	(33)	(4)
Provisions for liabilities and charges	(107)	(64)
Trade and other payables	(829)	(737)
Current tax payable	(78)	(124)
Liabilities held for sale	–	(393)
	(1,702)	**(1,373)**
NON-CURRENT LIABILITIES		
Financial liabilities		
– borrowings	(655)	(1,907)
– lease liabilities	(110)	(131)
– financial derivatives	(24)	–
Provisions for liabilities and charges	(301)	(335)
Retirement benefit obligations	(140)	(178)
Current tax payable	(4)	(7)
Deferred tax liabilities	(54)	(39)
Trade and other payables	(56)	(82)
	(1,344)	**(2,679)**
TOTAL LIABILITIES	(3,046)	**(4,052)**
NET ASSETS	3,312	**3,368**
SHAREHOLDERS' EQUITY		
Share capital	166	207
Share premium account	444	505
Capital redemption reserve	23	8
Revaluation reserve	–	1
Merger reserve	286	327
Retained earnings	2,612	2,608
Hedge reserve	(246)	(317)
Total shareholders' equity	3,285	**3,339**
Non-controlling interest equity	27	29
TOTAL EQUITY	3,312	**3,368**

UNAUDITED US DOLLAR PRIMARY STATEMENTS

Unaudited supplementary consolidated statement of changes in equity – US dollar translation

	Share capital and share premium $m	Other reserves $m	Retained earnings $m	Hedge reserve $m	Equity shareholders' funds $m	Non-controlling interest $m	Total equity $m
At 31 July 2021	712	336	2,608	(317)	3,339	29	3,368
Profit for the year	–	–	1,357	–	1,357	3	1,360
Other comprehensive income:							
– re-measurement of retirement benefits after tax	–	–	(22)	–	(22)	–	(22)
– FX movements net of recycling	(88)	(44)	(377)	172	(337)	(5)	(342)
– fair value gains/(losses) and related tax	–	–	(83)	(101)	(184)	–	(184)
Total comprehensive income for the year	**(88)**	**(44)**	**875**	**71**	**814**	**(2)**	**812**
Transactions relating to ownership interests:							
Issue of new equity shares	3	–	–	–	3	–	3
Purchase of shares by Employee Benefit Trust	–	–	(21)	–	(21)	–	(21)
Proceeds from exercise of share options	–	–	1	–	1	–	1
Share buybacks	(17)	17	(672)	–	(672)	–	(672)
Dividends:							
– equity shareholders	–	–	(197)	–	(197)	–	(197)
Share-based payment	–	–	18	–	18	–	18
At 31 July 2022	**610**	**309**	**2,612**	**(246)**	**3,285**	**27**	**3,312**

	Share capital and share premium $m	Other reserves $m	Retained earnings $m	Hedge reserve $m	Equity shareholders' funds $m	Non-controlling interest $m	Total equity $m
At 31 July 2020	667	319	2,534	(413)	3,107	29	3,136
Profit for the year	–	–	386	–	386	1	387
Other comprehensive income:							
– re-measurement of retirement benefits after tax	–	–	10	–	10	–	10
– FX movements net of recycling	42	17	(72)	(18)	(31)	(1)	(32)
– fair value gains/(losses) and related tax	–	–	5	114	119	–	119
Total comprehensive income for the year	**42**	**17**	**329**	**96**	**484**	**–**	**484**
Transactions relating to ownership interests:							
Exercises of share options	3	–	–	–	3	–	3
Receipt of capital from non-controlling interest	–	–	–	–	–	1	1
Purchase of own shares	–	–	(22)	–	(22)	–	(22)
Dividends:							
– equity shareholders	–	–	(252)	–	(252)	–	(252)
– non-controlling interests	–	–	–	–	–	(1)	(1)
Share-based payment	–	–	19	–	19	–	19
At 31 July 2021	**712**	**336**	**2,608**	**(317)**	**3,339**	**29**	**3,368**

UNAUDITED US DOLLAR PRIMARY STATEMENTS

Unaudited supplementary consolidated cash-flow statement – US dollar translation

	Year ended 31 July 2022 $m	Year ended 31 July 2021 $m
Net cash inflow from operating activities	**367**	**726**
Cash-flows from investing activities		
Expenditure on capitalised development	(29)	(37)
Expenditure on other intangible assets	(11)	(16)
Purchases of property, plant and equipment	(76)	(106)
Disposals of property, plant and equipment	4	3
Capital returned by/(investment in) financial assets	–	9
Acquisition of businesses	–	(113)
Investment in financial asset – discontinued operations	–	(19)
Proceeds on disposal of subsidiaries, net of cash disposed	1,751	–
Net cash-flow used in investing activities	**1,639**	**(279)**
Cash-flows from financing activities		
Proceeds from exercise of share options	3	3
Share buybacks	(672)	–
Purchase of shares by Employee Benefit Trust	(21)	(22)
Proceeds received on exercise of employee share options	1	–
Settlement of cash-settled options	(1)	–
Dividends paid to equity shareholders	(197)	(251)
Lease payments	(50)	(60)
Reduction and repayment of borrowings	(388)	–
Cash inflow from matured derivative financial instruments	30	5
Net cash-flow used in financing activities	**(1,295)**	**(325)**
Net decrease in cash and cash equivalents	**711**	**122**
Cash and cash equivalents at beginning of year	563	480
Cash held in disposal group	63	(38)
Exchange differences	(52)	(1)
Cash and cash equivalents at end of year	**1,285**	**563**
Cash and cash equivalents at end of year comprise:		
– cash at bank and in hand	295	304
– short-term deposits	991	259
	1,286	563
– bank overdrafts	(1)	–
	1,285	**563**

Unaudited Group US dollar financial record 2018-2022

The headline income statement metrics shown below for the year ended 31 July 2018 has been represented to show the results of Smiths Medical as a discontinued operation.

		Year ended 31 July 2022 $m	Year ended 31 July 2021 $m	Year ended 31 July 2020 $m	Year ended 31 July 2019 $m	Year ended 31 July 2018 $m
Income statement metrics – headline*						
Continuing operations	Revenue	3,377	3,264	3,216	3,218	3,139
	Headline operating profit	549	504	412	550	523
	Headline profit before tax	495	450	351	484	449
Discontinued operations	Revenue	468	1,152	1,159	1,126	1,172
	Headline operating profit	87	240	232	189	210
	Headline profit before tax	86	239	227	185	208
Income statement metrics – statutory**						
Revenue		3,377	3,264	3,216	3,218	3,139
Operating profit		154	442	304	420	461
Profit before taxation		135	325	169	391	386
Profit for the year		1,362	387	337	291	375
Balance sheet metrics***						
Net debt		(183)	(1,415)	(1,495)	(1,462)	(1,172)
Shareholders' equity		3,285	3,339	3,107	2,882	2,982
Average capital employed		3,578	5,790	5,652	4,852	4,903
Ratios***						
Headline operating profit: revenue (%)		16.5	16.9	14.7	17.0	17.0
Headline effective tax rate (%)		27.2	27.1	26.2	25.9	25.8
Return on capital employed (%)		14.2	13.2	11.8	14.4	14.6
Return on shareholders' funds (%)		9.9	12.2	10.6	12.1	12.5
Cash-flow metrics***						
Headline operating cash		829	855	726	611	725
Headline operating cash conversion (%)		76	125	123	83	99
Free cash-flow		171	520	345	301	407
Free cash-flow per share (c)		47.2	131.1	68.9	76.1	102.9
Earnings per share***						
Headline earnings per share (c)		108.6	126.3	107.0	124.7	122.3
Dividends and dividend cover***						
Cents per share (c)		52.1	51.1	44.2	59.1	60.1
Headline dividend cover		2.1	2.5	2.4	2.1	2.0

* The headline income statement metrics in the above five-year record have been presented to reflect the reclassification of the Smiths Medical business as a discontinued operation and the Group's current accounting policy of including restructuring and pension administration costs within headline profit. The discontinued operations comparatives for the year ended 31 July 2018 have also been restated for the adoption of IFRS 15.

** The statutory income statement metrics are presented based on continuing operations for both the current and comparative year.

*** Balance sheet metrics, ratios, cash-flow metrics, earnings per share, dividend cover and number of employees are presented based on both continuing and discontinued operations for all years.

SMITHS GROUP PLC COMPANY ACCOUNTS

Company balance sheet

	Notes	31 July 2022 £m	31 July 2021 £m
NON-CURRENT ASSETS			
Right of use assets	2	5	6
Investments	3	2,422	2,414
Loans due from subsidiaries	3	561	611
Retirement benefit assets	10	309	546
Financial derivatives	8	–	75
		3,297	**3,652**
CURRENT ASSETS			
Trade and other receivables	5	62	52
Current tax receivable		5	5
Cash and cash equivalents	7	770	158
Financial derivatives	8	9	2
		846	**217**
TOTAL ASSETS		**4,143**	**3,869**
CURRENT LIABILITIES			
Trade and other payables	6	(588)	(91)
Lease liabilities	7	(1)	(1)
Financial derivatives	8	(29)	(2)
		(618)	**(94)**
NON-CURRENT LIABILITIES			
Borrowings	7	(545)	(1,354)
Lease liabilities	7	(5)	(6)
Provisions for liabilities and charges	9	(2)	(2)
Retirement benefit liabilities	10	(47)	(58)
Financial derivatives	8	(20)	–
Deferred tax liabilities	4	–	(28)
		(619)	**(1,448)**
TOTAL LIABILITIES		**(1,237)**	**(1,542)**
NET ASSETS		**2,906**	**2,327**
SHAREHOLDERS' EQUITY			
Called up share capital	11	136	149
Share premium account	11	365	363
Capital redemption reserve	11	19	6
Other reserves	11	181	181
Profit and loss account	11	2,205	1,628
TOTAL EQUITY		**2,906**	**2,327**

The Company's profit for the period was £1,257m (FY2021: £2m loss).

The accounts on pages 171 to 179 were approved by the Board of Directors on 22 September 2022 and were signed on its behalf by:

Paul Keel
CHIEF EXECUTIVE OFFICER

Clare Scherrer
CHIEF FINANCIAL OFFICER

Smiths Group plc – registered number 137013

Company statement of changes in equity

	Share capital £m	Share premium £m	Capital redemption reserve £m	Other reserves £m	Retained profit £m	Shareholders' equity £m
At 31 July 2021	**149**	**363**	**6**	**181**	**1,628**	**2,327**
Profit for the year	–	–	–	–	1,257	1,257
Other comprehensive income:						
– re-measurement of retirement benefits	–	–	–	–	(23)	(23)
– taxation recognised on retirement benefits	–	–	–	–	6	6
Total comprehensive income for the year	–	–	–	–	**1,240**	**1,240**
Transactions with owners:						
Issue of new equity shares	–	2	–	–	–	2
Purchase of shares by Employee Benefit Trust	–	–	–	–	(16)	(16)
Proceeds received on exercise of employee share options	–	–	–	–	1	1
Shares purchased under a buyback programme	(13)	–	13	–	(511)	(511)
Dividends paid to equity shareholders	–	–	–	–	(150)	(150)
Share-based payment	–	–	–	–	13	13
Total transactions with owners recognised in equity	**(13)**	**2**	**13**	**–**	**(663)**	**(661)**
At 31 July 2022	**136**	**365**	**19**	**181**	**2,205**	**2,906**

	Share capital £m	Share premium £m	Capital redemption reserve £m	Other reserves £m	Retained profit £m	Shareholders' equity £m
At 31 July 2020	**149**	**361**	**6**	**181**	**1,812**	**2,509**
Profit for the year	–	–	–	–	(2)	(2)
Other comprehensive income:						
– re-measurement of retirement benefits	–	–	–	–	12	12
– taxation recognised on retirement benefits	–	–	–	–	(6)	(6)
Total comprehensive income for the year	**–**	**–**	**–**	**–**	**4**	**4**
Transactions with owners:						
Issue of new equity shares	–	2	–	–	–	2
Purchase of shares by Employee Benefit Trust	–	–	–	–	(16)	(16)
Dividends paid to equity shareholders	–	–	–	–	(185)	(185)
Share-based payment	–	–	–	–	13	13
Total transactions with owners recognised in equity	**–**	**2**	**–**	**–**	**(188)**	**(186)**
At 31 July 2021	**149**	**363**	**6**	**181**	**1,628**	**2,327**

Company accounting policies

Basis of preparation

These financial statements were prepared in accordance with Financial Reporting Standard 101 Reduced Disclosure Framework ('FRS 101'). In preparing these financial statements, the Company applies the recognition, measurement and disclosure requirements of UK-adopted international accounting standards ('Adopted IFRSs'), but makes amendments where necessary in order to comply with Companies Act 2006 and has set out below where advantage of the FRS 101 disclosure exemptions has been taken.

These accounts have been prepared on a going concern basis and under the historical cost convention modified to include revaluation of certain financial instruments, share options and pension assets and liabilities held at fair value.

As permitted by Section 408(3) of the Companies Act 2006, the Company's income statement and statement of comprehensive income have not been presented. As permitted by Section 408(2), information about the Company's employee numbers and costs is not presented.

Going concern

The Directors are satisfied that the Group, (of which the Company is the holding company) has adequate resources to continue to operate for a period not less than 12 months from the date of approval of the financial statements and that there are no material uncertainties around their assessment. Accordingly, the Directors continue to adopt the going concern basis of accounting. Details of the going concern assessment for the Group are provided in the accounting policies note of the consolidated financial statements.

Exemptions from the requirements of IFRS applied in accordance with FRS 101

The following exemptions from the requirements of IFRS have been applied in the preparation of these financial statements, in accordance with FRS 101:

- Paragraphs 45(b) and 46 to 52 of IFRS 2, 'Share-based payment' (details of the number and weighted-average exercise prices of share options, and how the fair value of goods or services received was determined)
- IFRS 7, 'Financial Instruments: Disclosures'
- Paragraphs 91 to 99 of IFRS 13, 'Fair value measurement' (disclosure of valuation techniques and inputs used for fair value measurement of assets and liabilities).
- Paragraph 38 of IAS 1, 'Presentation of financial statements' comparative information requirements in respect of:
  - paragraph 79(a)(iv) of IAS 1;
  - paragraph 73(e) of IAS 16 'Property, plant and equipment';
- The following paragraphs of IAS 1, 'Presentation of financial statements'
  - 10(d) (statement of cash-flows),
  - 16 (statement of compliance with all IFRS),
  - 38A (requirement for minimum of two primary statements, including cash flow statements),
  - 38B-D (additional comparative information),
  - 111 (cash flow statement information), and
  - 134-136 (capital management disclosures)
- IAS 7, 'Statement of cash-flows'
- Paragraph 30 and 31 of IAS 8 'Accounting policies, changes in accounting estimates and errors' (requirement for the disclosure of information when an entity has not applied a new IFRS that has been issued but is not yet effective)
- Paragraph 17 of IAS 24, 'Related party disclosures' (key management compensation)
- The requirements in IAS 24, 'Related party disclosures' to disclose related party transactions entered into between two or more members of a group.
- The requirements of paragraphs 52 and 58 of IFRS 16 Leases

Significant judgements, key assumptions and estimates

The preparation of the accounts in conformity with generally accepted accounting principles requires management to make estimates and judgements that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the accounts and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from these estimates.

The key sources of estimation uncertainty together with the significant judgements and assumptions used in these Parent Company financial statements are set out below.

Sources of estimation uncertainty

Taxation

The Company has recognised deferred tax assets of £66m (FY2021: £89m) relating to revenue losses brought forward. The recognition of these assets requires management to make significant estimates as to the ability to recover them against the unwind of other tax positions and forecast UK taxable profits of the tax group. Further detail on the Company's deferred taxation position is included in note 4.

Retirement benefits

Determining the value of the future defined benefit obligation involves significant estimates in respect of the assumptions used to calculate present values. These include future mortality, discount rate and inflation. The Company uses previous experience and independent actuarial advice to select the values for critical estimates. A portion of the Company's pension liabilities are insured via bulk annuity policies which broadly match the scheme obligation to identified groups of pensioners. These assets are valued by an external qualified actuary at the actuarial valuation of the corresponding liability, reflecting this matching relationship.

The Company's principal defined benefit pension plans have been closed so that no future benefits are accrued. Critical estimates for these plans, and the effect of variances in these estimates, are disclosed in note 8 to the consolidated financial statements.

Significant judgements made in applying accounting policies

Taxation

As stated in the previous section 'Sources of estimation uncertainty', the Company has recognised deferred tax assets of £66m (FY2021: £89m) relating to revenue losses brought forward. The decision to recognise deferred tax assets requires judgement in determining whether the Company will be able to utilise historical tax losses in future periods. It has been concluded that there are sufficient taxable profits in future periods to support recognition.

Retirement benefits

At 31 July 2022 the Company has recognised £309m of retirement benefit assets (FY2021: £546m), which arises from the rights of the employers to recover the surplus at the end of the life of the scheme.

The recognition of this surplus is a significant judgement. There is judgement required in determining whether an unconditional right of refund exists based on the provisions of the relevant trust deed and rules. Having taken legal advice with regard to the rights of the Company under the relevant Trust deed and rules, it has been determined that the surplus is recoverable by the Company and therefore can be recognised. If the pension schemes were wound up while they still had members, the schemes would need to buy out the benefits of all members. The buyouts would cost significantly more than the carrying value of the scheme liabilities within these financial statements which are calculated in accordance with IAS 19: Employee benefits.

Foreign currencies

Foreign currency transactions are recorded at the exchange rate ruling on the date of transaction. Foreign exchange gains and losses resulting from the settlement of such transactions, and from the retranslation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies, are recognised in the profit and loss account.

Leases

At the commencement date of the lease, the Company recognises lease liabilities measured at the present value of lease payments to be made over the lease term, which includes periods covered by renewal options the Company is reasonably certain to exercise. In calculating the present value of lease payments, the Company uses the incremental borrowing rate at the lease commencement date.

The Company recognises right of use assets at the commencement date of the lease. Right of use assets are measured at cost including the amount of lease liabilities recognised and initial direct costs incurred, less any incentives granted by the lessor. Right of use assets are subject to impairment and are depreciated over the shorter of the lease term and the useful life of the right of use asset.

The Company has a buildings lease with a term of seven years. Other leases with lease terms of 12 months or less and leases of office equipment with low value (typically below £5,000) are recognised as an expense on a straight-line basis over the lease term with the Company having applied 'short-term lease' and 'lease of low-value assets' recognition exemptions.

Investments in and loans to Group companies

The Company's investments in shares in Group companies are stated at cost less provision for impairment. Any impairment is charged to the profit and loss account as it arises.

The recoverability of intercompany loans is assessed applying the methodology of IFRS 9 by looking at the credit quality of the subsidiary and any support available to the entity. These calculations require the use of estimates including projected future cash-flows and other future events. The application of the expected credit loss model has not had a material impact on the Company's loan receivables provisioning position.

Financial instruments

The policies disclosed in the Group accounting policies on pages 108 to 115 for recognition, measurement and presentation of financial instruments are applied in the Company accounts.

Taxation

Deferred tax is provided using the balance sheet liability method. A deferred tax asset is recognised where it is probable that future taxable income will be sufficient to utilise the available relief.

Deferred tax is provided on temporary differences arising on investments in subsidiaries, except where the timing of the reversal of the temporary difference is controlled by the Company and it is probable that the temporary difference will not reverse in the foreseeable future.

Provisions

Provisions for disposal indemnities, restructuring costs, property dilapidations and legal claims are recognised when: the Company has a legal or constructive obligation as a result of a past event; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. Provisions are not recognised for future operating losses.

Provisions are discounted where the time value of money is material.

Retirement benefits

The Company has both defined benefit and defined contribution plans. The policies disclosed in the Group accounting policies on pages 108 to 115 for recognition, measurement and presentation of retirement benefits are applied in the Company accounts. Note 8 to the consolidated accounts explains the valuation basis for the Company's retirement benefit schemes assets and liabilities.

Share-based payment

The Company operates a number of equity-settled and cash-settled share-based compensation plans.

The fair value of the shares or share options granted is recognised over the vesting period to reflect the value of the employee services received. The charge relating to grants to employees of the Company is recognised as an expense in the profit and loss account and the charge for grants to employees of other Group companies is recognised as an investment in the relevant subsidiary.

The fair value of options granted, excluding the impact of any non-market vesting conditions, is calculated using established option pricing models, principally binomial models. The probability of meeting non-market vesting conditions, which include profitability targets, is used to estimate the number of share options that are likely to vest.

For cash-settled share-based payment schemes, a liability is recognised based on the fair value of the payment earned by the balance sheet date. For equity-settled share-based payment schemes, the corresponding credit is recognised directly in reserves.

Dividends

Dividends are recognised as a liability in the period in which they are authorised. The interim dividend is recognised when it is paid and the final dividend is recognised when it has been approved by shareholders at the Annual General Meeting.

Notes to the Company accounts

1 Audit fee and directors emoluments

The audit fee paid to KPMG LLP for the Parent Company was £0.1m (FY2021: £0.1m).

Directors' emoluments in the year amounted to £4m (FY2021: £5m). Further information is in the Remuneration & People Committee Report on pages 75 to 88.

2 Right of use assets

	Properties £m
Cost or valuation	
At 31 July 2020	8
At 31 July 2021	**8**
At 31 July 2022	**8**
Depreciation	
At 31 July 2020	1
Charge for the year	1
At 31 July 2021	**2**
Charge for the year	1
At 31 July 2022	**3**
Net book value at 31 July 2022	**5**
Net book value at 31 July 2021	6
Net book value at 31 July 2020	7

3 Investments and loans due from subsidiaries

	Shares in subsidiary undertakings £m	Loans due from subsidiaries £m	Total £m
Cost or valuation			
At 31 July 2020	**2,410**	**869**	**3,279**
Foreign exchange rate movements	–	(74)	(74)
Contribution through share options	9	–	9
Decrease in advances due from subsidiaries	–	(183)	(183)
At 31 July 2021	**2,419**	**612**	**3,031**
Foreign exchange rate movements	–	21	21
Contribution through share options	8	–	8
Decrease in advances due from subsidiaries	–	(71)	(71)
At 31 July 2022	**2,427**	**562**	**2,989**
Provision for impairment			
At 31 July 2020, 31 July 2021 and 31 July 2022	5	1	6
Net book value at 31 July 2022	**2,422**	**561**	**2,983**
Net book value at 31 July 2021	2,414	611	3,025
Net book value at 31 July 2020	2,405	868	3,273

Loans due to subsidiaries are offset against loans due from subsidiaries to the extent that there is a legal right of set off and an intention to settle the balances net. At 31 July 2022 £1,664m of loans payable are offset against loans receivable (FY2021: £2,790m). The Company has large offsetting loan balances because it uses loans to reduce its foreign currency exposures and separately monitor net cash generated from trading activities.

The Company's subsidiaries are largely held according to business lines by the following holding companies, which are incorporated in England:

Smiths Group International Holdings Limited
Smiths Detection Group Limited
John Crane Group Limited
Flex-Tek Group Limited
Smiths Interconnect Group Limited

SMITHS GROUP PLC COMPANY ACCOUNTS

The principal subsidiaries and their countries of incorporation are:

England
Smiths Detection – Watford Ltd
John Crane UK Limited

Other
Smiths Detection Germany GmbH (Germany)
Smiths Detection (Asia-Pacific) Pte Ltd (Singapore)
John Crane Middle East FZE (UAE)
John Crane Technology (Tianjin) Co Limited (China)
John Crane Saudi Arabia Ltd (Saudi Arabia)
John Crane Canada Inc (Canada)

United States
Smiths Detection, Inc.
John Crane, Inc.
Titeflex Corporation
Flexible Technologies, LLC.
Tutco, LLC.
Royal Metal Products, LLC
Smiths Interconnect Americas, Inc
Smiths Interconnect, Inc
Kreisler Manufacturing Corp
Smiths Tubular Systems – Laconia Inc

Of the companies above, Smiths Group International Holdings Limited is 100% owned directly by the Company. The others are 100% owned through intermediate holding companies. Shareholdings are of ordinary shares or common stock. All of the above subsidiaries operate in their country of incorporation.

See pages 180 to 188 for a complete list of subsidiary undertakings.

4 Deferred tax assets and liabilities
The Company has recognised the following deferred tax assets and liabilities:

	Share-based payment £m	Retirement benefit obligations £m	Losses carried forward £m	Other £m	Total £m
At 31 July 2020	**3**	**(88)**	**72**	**2**	**(11)**
(Charge)/credit to income statement	–	(29)	17	1	(11)
Charge to equity	–	(6)	–	–	(6)
At 31 July 2021	**3**	**(123)**	**89**	**3**	**(28)**
(Charge)/credit to income statement	(2)	51	(23)	(3)	23
Charge to equity	(1)	6	–	–	5
At 31 July 2022	**–**	**(66)**	**66**	**–**	**–**

The Company is part of a UK tax group including all its UK-based subsidiaries. The Company has recognised deferred tax assets of £66m (FY2021: £89m) relating to revenue losses brought forward. The recognition of these assets is dependent on the ability to recover them against the unwind of other tax positions and forecast UK taxable profits of the tax group. The treatment of these assets is reviewed at each reporting date.

As at 31 July 2022 the Company has unrecognised deferred tax assets relating to losses of £142m (FY2021: £nil).

In June 2021, it was announced that from 1 April 2023, there would be an increase in the rate of UK corporation tax from 19% to 25%. Deferred tax, as at 31 July 2022 has been calculated at the 25% rate.

5 Trade and other receivables

	31 July 2022 £m	31 July 2021 £m
Amounts owed by subsidiaries	61	51
Other receivables	1	1
	62	**52**

6 Trade and other payables

	31 July 2022 £m	31 July 2021 £m
Amounts owed to subsidiaries	58	56
Term loans due within one year	504	–
Other creditors	15	21
Accruals and deferred income	11	14
	588	**91**

SMITHS GROUP PLC COMPANY ACCOUNTS

7 Borrowings and net debt

	31 July 2022 £m	31 July 2021 £m
Cash at bank	10	20
Short-term deposits	760	138
Cash and cash equivalents	**770**	**158**
Lease liabilities falling due within one year	(1)	(1)
Lease liabilities falling due after one year	(5)	(6)
Term loans falling due within one year	(504)	(23)
Term loans falling due after one year	(545)	(1,354)
Borrowings	**(1,055)**	**(1,384)**
Net debt	**(285)**	**(1,226)**

Term loans and lease liabilities

The currency and coupons for the term loans are disclosed in note 18 of the Group accounts.

	31 July 2022 £m	31 July 2021 £m
Less than one year	505	24
Between one and two years	1	290
Between two and five years	548	516
Greater than five years	1	554
Smiths Group plc term loans and lease liabilities	**1,055**	**1,384**

See the liquidity risk disclosures in note 19 in the Group accounts for information on the cash and borrowing facilities available to the Group. Smiths has Revolving Credit Facilities of $800m maturing on 1 November 2024.

8 Derivatives

The tables below set out the nominal amount and fair value of derivative contracts held by the Company:

	At 31 July 2022			
		Fair value		
	Contract or underlying nominal amount £m	Assets £m	Liabilities £m	Net £m
Foreign exchange contracts (not hedge accounted)	593	9	(9)	–
Cross-currency swaps (fair value and net investment hedges)	615	–	(40)	(40)
Interest rate swaps (fair value hedges)	–	–	–	–
Total financial derivatives	**1,208**	**9**	**(49)**	**(40)**
Balance sheet entries				
Non-current		–	(20)	(20)
Current		9	(29)	(20)
Total financial derivatives		**9**	**(49)**	**(40)**

	At 31 July 2021			
		Fair value		
	Contract or underlying nominal amount £m	Assets £m	Liabilities £m	Net £m
Foreign exchange contracts (not hedge accounted)	325	2	(2)	–
Currency swaps (fair value and net investment hedges)	539	72	–	72
Interest rate swaps (fair value hedges)	108	3	–	3
Total financial derivatives	**972**	**77**	**(2)**	**75**
Balance sheet entries				
Non-current		75	–	75
Current		2	(2)	–
Total financial derivatives		**77**	**(2)**	**75**

Derivatives, including forward exchange contracts, currency swaps, interest rate instruments and embedded derivatives are Level 2 fair value instruments and are valued at the net present value of the future cash-flows calculated using market data at the balance sheet date (principally exchange rates and yield curves).

The debit to the income statement arising from change in fair value in the year was £28m (FY2021: £5m).

9 Provisions for liabilities and charges

	At 31 July 2021 £m	Charged against profit £m	Utilisation £m	At 31 July 2022 £m
Disposals	2	–	–	2

The closing disposal provision relates to warranties and other obligations in respect of a past disposal and is expected to be utilised within the next five years.

10 Post-retirement benefits

The Company is the principal employer for the two major defined benefit plans in the UK. The Company is accounting for all the UK defined benefit schemes (funded and unfunded) and virtually all of the post-retirement healthcare schemes.

The retirement benefit assets and liabilities comprise:

	31 July 2022 £m	31 July 2021 £m
Market value of scheme assets	3,067	4,104
Present value of funded scheme liabilities	(2,738)	(3,558)
Surplus restriction	(20)	–
Surplus	309	546
Unfunded pension plans	(43)	(54)
Post-retirement healthcare	(4)	(4)
Present value of unfunded obligations	(47)	(58)
Net pension asset	**262**	**488**
Retirement benefit assets	309	546
Retirement benefit liabilities	(47)	(58)
Net pension asset	**262**	**488**

See the disclosures for UK schemes in note 8 to the consolidated accounts for the circumstances of the major schemes, risk management, principal assumptions, assets and liabilities and the funding position of the two major schemes.

11 Share capital and reserves

Share capital

	Number of shares	Issued capital £m	Consideration £m
Ordinary shares of 37.5p each			
Total share capital at 31 July 2020	396,211,180	149	
Issue of new equity shares – exercise of share options	165,934	–	2
Total share capital at 31 July 2021	396,377,114	149	
Shares purchased under a buyback programme	(34,152,897)	(13)	
Issue of new equity shares – exercise of share options	131,942	–	2
Total share capital at 31 July 2022	**362,356,159**	**136**	

At 31 July 2022, all of the issued share capital was in free issue. All issued shares are fully paid. See note 9 to the consolidated accounts for information about share schemes, including total shares under options and options exercisable at the balance sheet date. During the year, the Company received £3m (FY2021: £2m) on the issue of shares in respect of the exercise of options awarded under various share option schemes.

Smiths Industries Employee Benefit Trust

The retained earnings include the purchase of Smiths Group plc shares by the Smiths Industries Employee Benefit Trust, and the issue of these shares upon the exercise of share options. The consideration paid was £16m (FY2021: £16m) and £3m (FY2021: £2m) was received, £2m from the issue of new shares (FY2021: £2m) and £1m (FY2021: £nil) directly to the Employee Benefit Trust. At 31 July 2022 the Trust held 618,662 (FY2021: 326,364) ordinary shares.

Distributable profits

The Company's profit and loss reserve of £2,205m (FY2021: £1,628m) includes £1,328m (FY2021: £638m) of distributable profits. See note 26 in the Group accounts for a discussion of capital management and the factors which the Board considers when proposing dividends.

Other reserves

Other reserves arose from the cancellation of the share premium arising from an equity-funded acquisition in the year ended 30 July 1988.

Differential between consolidated and parent Company net assets

The Group's consolidated balance sheet shows net assets that are £185m lower (FY2021: £96m higher) than the net assets shown on the Parent Company's balance sheet. This deficit principally arose in 2007 when the Group returned £2.1bn of capital to shareholders, creating a net asset deficit of £1.9bn. Earnings retained within the Group have subsequently reduced this deficit. The current year reversal has arisen from the dividend paid to the Company by Smiths Group International Holdings Ltd following the sale of the Medical business.

12 Contingent liabilities

The Company has provided guarantees and arranged letter of credit facilities to support the Group's pension plans. The current amount outstanding under letters of credit is £56m (FY2021: £54m). The Company has guaranteed the US$800m revolving credit facility available to a subsidiary.

13 Post Balance Sheet Event

Details of the proposed final dividend announced since the end of the reporting period are given in note 25 to the Group consolidated financial statements.

SUBSIDIARY UNDERTAKINGS

A full list of the Group's related undertakings as at 31 July 2022 is provided below. The entities are grouped by the country in which they are incorporated and details of their registered office address, classes of shares and ownership is disclosed. Related undertakings include subsidiaries, associated undertakings, joint ventures and associates.

Name	Security	Direct (%)	Total (%)
UNITED KINGDOM			
11-12 St James's Square, London, SW1Y 4LB			
Air Log Limited	Ordinary		100
EIS Group Plc	Ordinary	100	100
Flex-Tek Group Limited	Ordinary		100
Flightspares Limited	Ordinary	100	100
Francis Shaw And Company (Manchester) Limited	Ordinary		100
Francis Shaw PLC	37% 2nd Pref Ordinary; 5.25% Cum Pref; Dif; Ordinary		100
Graseby Limited	Ordinary	100	100
Roof Units (Group) Limited	Ordinary	100	100
S.I. Pension Trustees Limited	Ordinary	100	100
SI Properties Limited	Ordinary	100	100
SITI 1 Limited	Common		100
Smiths Aerospace Components Tyseley Limited	Ordinary	100	100
Smiths Aerospace Gloucester Limited	Ordinary; Ordinary A		100
Smiths Finance Limited	Ordinary; RDM		100
Smiths Group Finance EU Limited	Ordinary		100
Smiths Group Finance US Limited	Ordinary		100
Smiths Group Innovation Limited	Ordinary		100
Smiths Group International Holdings Limited	Ordinary	100	100
Smiths Industries Limited	7% Non Cum Pref; Ordinary	100	100
Smiths Nominees Limited	Ordinary	100	100
Smiths Wolverhampton Limited	Ordinary		100
Sovos Limited	Ordinary		100
TI Corporate Services Limited	Ordinary	100	100
TI Group Limited	Ordinary	100	100
Tigrup No. 7 Limited	Ordinary	100	100
Tigrup No. 14 Limited	Ordinary		100
XDG Limited	Ordinary	100	100
XDG Services Limited	Ordinary		99
29 Dunsinane Avenue, Dundee, DD2 3QF			
Flexible Ducting Limited	Ordinary		100
Trak Microwave Limited	Ordinary		100
54 Hagley Road, Edgbaston, Birmingham, B16 8PE			
CVE Trustee Limited	Ordinary	100	100
Smiths Pensions Limited	Ordinary	99	100
TI Pension Trustee Limited	Limited By Guarantee		100
Abercanaid, Merthyr Tydfil, Mid Glamorgan, CF48 1UX			
Amnitec Hose Limited	Ordinary		100
Amnitec Limited	Ordinary		100
Brooklyn House, 44 Brook Street, Shepshed, Loughborough, LE12 9RG			
Gastite Systems Limited	Ordinary		100
Buckingham House, 361-366 Buckingham Avenue, Slough, Berkshire, SL1 4LU			
Flexibox International Limited	Ordinary		100
John Crane Group Limited	Ordinary		100
John Crane Investments Limited	Ordinary		100
John Crane UK Limited	Ordinary		100
Project Sugar Limited	Ordinary		100
Smiths Business Information Services Limited	Ordinary		100
Century House, Maylands Avenue, Hemel Hempstead, Hertfordshire, HP2 7DE			
Smiths Detection Group Limited	Ordinary		100
Smiths Detection Investments Limited	Ordinary		100
Smiths Detection Limited	Ordinary	100	100
Smiths Detection-Watford Limited	Ordinary		100
Smiths Heimann Limited	Ordinary	100	100
No 1 Exchange, Market Street, Aberdeen, Scotland			
John Crane Asset Management Solutions Limited	Ordinary		100

SUBSIDIARY UNDERTAKINGS

Name	Security	Direct (%)	Total (%)
Unit 130 Centennial Park, Elstree, Hertfordshire, WD6 3TJ			
Hypertac Limited	Ordinary		100
Smiths Industries Industrial Group Limited	Ordinary		100
Smiths Interconnect Group Limited	Ordinary		100
ANGOLA			
Rue Kwamme Nkrumah, Torres Impor-Africa, 3 Andar, Apt A, Luanda			
John Crane (Angola) Prestacao De Services Ltd	Ordinary		100
ARGENTINA			
Av. Leandro N. Alem 1110, 13 Floor, Baker Mackenzie Office, Buenos Aires			
John Crane Argentina SA	Common		100
TI Group Automotive Systems (Argentina) SA	Ordinary		100
AUSTRALIA			
549 – 551, Somerville Road, Sunshine, Melbourne, VIC 3020			
Flexibox Pty Limited	Ordinary		100
John Crane Australia Pty Limited	Ordinary		100
Botany Grove Estate Unit 5, 14A Baker Street, Botany, NSW 2019			
Smiths Detection (Australia) Pty Ltd	Ordinary		100
AZERBAIJAN REPUBLIC			
32, Dostluq Street, Salyan Highway PO Box AZ1023, Baku			
John Crane Baku LLC	Ordinary		100
BELGIUM			
Glasstraat 37, Antwerpen, 2170			
John Crane Belgium NV	Ordinary		100
BRAZIL			
Rua Tabapoã, 422, 10th floor, conj. 101, Itaim Bibi, 04533-001			
Smiths Detection Brasil Comérico De Equipamentos Ltda	Common		100
Industrial District of The City of Rio Claro, State of São Paulo, AV. Brasil Number 4.700, CEP 13505-600			
Smiths Brasil Ltda	Ordinary		100
CANADA			
423, Green North Road, Stoney Creek, Ontario, L8E 3A1			
John Crane Canada Inc	Common		100
3700, Stock Exchange Tower, P.O. Box 242, 800 Place Victoria, Montreal, PQ, H4Z 1E9			
Smiths Detection Montreal Inc.	Class A Shares; Class B Shares		100
4610, Eastgate Parkway, Unit 3, Mississauga, Ontario, L4W 3W6			
Flexible Technologies (Canada) Ltd.	Ordinary		100
16771, Sainte Marie Rd, Kirkland, Quebec, H9H 5H3			
Smiths Interconnect Canada Inc	Common Shares		100
CHILE			
Americo Vespucio 2542, Complejo Empresarial El Cortijo, Conchali, Santiago			
John Crane Chile SA	Ordinary		100
CHINA			
No. 1, Lane 65, Huanlong Road, Pudong New District, Shanghai			
Smiths (Shanghai) Management Co., Ltd	Ordinary		100
No. 7, Factory Building, Maqiao Industrial Square, Changshu Economic Development Zone, Changshu, Jiangsu 215536			
Changshu Flex-Tek Thermal Fluid Systems Manufacturer Co. Ltd	Ordinary		100
No.9, No. 1, Haitai Huake Road, Huayuan Industrial District (Outside The Ring), Binhai Hi-Tech, Industrial Park, Tianjin			
John Crane Technology (Tianjin) Co Limited	Ordinary		100
No. 14 Unit, No. 78, XingLin Road, Suzhou Industrial Park, Suzhou 215026			
Antares Advanced Test Technologies (Suzhou) Co. Ltd	Ordinary		100
No. 120, Sanjiang Avenue, Economic Development Zone, Mianyang, Sichuan Province			
Huafeng Smiths Interconnect (Sichuan) Co., Ltd	Ordinary		60
Room 923B, No 55, Xili Road, Shanghai, (China) Pilot Free Trade Zone			
SMO Detection Equipment (Shanghai) Co., Ltd	Ordinary		100
Room 1668, No. 14F Floor 3 Datong Building, Huanghe Avenue, Nankai District, Tianjin			
John Crane China Co Limited	Ordinary		100

SUBSIDIARY UNDERTAKINGS

Name	Security	Direct (%)	Total (%)
COLOMBIA			
Calle 46A No 82-54 Int 14, Parque Empresarial San Cayetano, Bogota			
John Crane Colombia SA	Ordinary		100
COSTA RICA			
33rd St. Number 777 Barrio Francisco Peralta, Central Avenue & 8th, San Jose			
Smiths Interconnect Sociedad Anonima	Ordinary		100
CZECH REPUBLIC			
Jana Sigmunda 78, Lutin, 78349			
John Crane A.S.	Ordinary		100
DOMINICAN REPUBLIC			
Calle El Recodo, #2 Bella Vista, Santa Domingo			
John Crane Dominicana SA	Ordinary		100
EGYPT			
139, Mogamaa El Masanea Street, El Amireya, Cairo			
John Crane Egypt Llc	Ordinary		100
John Crane Egypt Sealing Systems Llc	Ordinary		99
Nile City Towers, North Tower, 22nd Floor, Ramlet Boulaq, Nile Cournich, Cairo			
Detection Technologies Egypt	Quotas		100
FINLAND			
PO Box 10, Punasillantie 15, Muurame, 40950			
John Crane Safematic Oy	Ordinary		100
FRANCE			
22, Avenue Maurice Chevalier, 77833 Ozoir-La-Ferriere, Paris			
Titeflex Europe S.A.S.	Ordinary		100
31 Rue Isidore Maille, Saint-Aubin-Les-Elbeuf, 76410			
Hypertac S.A.	Ordinary		100
36 Rue Charles Heller, Vitry Sur Seine, F-94400			
Smiths Detection France S.A.S.	Shares		100
114, Rue Jules Ferry, B.p.35, Deville-Les-Rouen, 76250			
John Crane France S.A.S.	Ordinary		100
T I S A (France)	Ordinary		100
GERMANY			
Am Zirkus 2, Berlin, 10117			
John Crane Filtration Technologies GmbH	Ordinary		100
Gewerbestraße 15 a, Graben, 86836			
Gastite Systems Deutschland GmbH	Ordinary		100
Im Herzen 4, Wiesbaden, 65205			
Smiths Detection GmbH	Shares		100
Smiths Detection Germany GmbH	Ordinary		100
Neckarweg 3, Vellmar, 34246			
Herkules Holding GmbH	Ordinary		100
Seebach GmbH	Ordinary		100
Reepschlager Str., 10B, Lubeck, 23556			
Flexschlauch Produktions GmbH	Shares		100
Tolzer Strasse, 15 82031, Grunwald			
Zamor KG	Ordinary		48
Ulrichsberger Strasse 17, Deggendorf, 94469			
Hypertac GmbH	Ordinary		100
Werner–Von–Siemens – Str.6, Fulda, 36041			
John Crane GmbH	Ordinary		100
GREECE			
3 Stratigou Tobre Street, Municipality Of Agia Paraskevi, Athens, 153 42			
John Crane Hellas – Engineered Sealing Systems Monoprosopi Epe	Ordinary		100
GUERNSEY			
Level 5, Mill Court, La Charroterie, St Peter Port, GY1 1EJ			
Smiths Group Insurance Limited	Ordinary		100

SUBSIDIARY UNDERTAKINGS

Name	Security	Direct (%)	Total (%)
HONG KONG			
4008-4009, 40/F, One Pacific Place, 88 Queensway			
Smiths Interconnect Group (HK) Limited	Ordinary		100
Smiths Interconnect Hong Kong Co Limited	Ordinary		100
Smiths Detection Hong Kong Limited	Ordinary		100
HUNGARY			
2040 Budaors, Gyar U. 2			
John Crane Hungary Kft	Ordinary		100
INDIA			
D-196 Okhla Industrial Area, Phase-1, New Dehli, 110020			
Plenty India Limited	Ordinary Shares		100
No 11, 1st Phase, Peenya, Industrial Area, Bangalore, 560058			
John Crane Sealing Systems India Private Limited	Ordinary		100
Smiths Interconnect India Private Limited	Ordinary		100
No 38, Kiadb Industrial Area, Bangalor, 561203			
STS Titeflex India Pvt Ltd	Ordinary		100
Shirwal, Maharashtra 412801			
Seebach Filter Solutions India Pvt Ltd	Ordinary		100
Vardhman Crown Mall, Unit No. 300 3rd Floor, Sector 19 Dwarka, New Delhi 110075			
Smiths Detection Systems Private Limited	Class A Equity Shares; Class B Equity Shares		100
INDONESIA			
Cilandak Commercial Estate Bldg 401A, Ji. Kko Cilandak, Jakarta, 12560			
PT John Crane Indonesia	Ordinary		99
IRELAND			
Riverside One, Sir John Rogerson's Quay, Dublin, D02X576			
John Crane Pension Trustee (Ireland) Ltd	Ordinary		100
Deloitte Offices, 6 Lapps Quay, Cork			
Smiths Detection Ireland Limited	Ordinary; Ordinary B; Ordinary D; Series C		100
T53/54, Shannon Industrial Estate, Shannon, Co. Clare			
John Crane (Ireland) Limited	Ordinary		100
ITALY			
Via Da Bissone 7A, Genova, 16153			
Hypertac SpA	Ordinary		100
Via Giotto 3, Muggio, 20835			
John Crane Italia SpA	Ordinary		100
Smiths Detection Italia srl	Quota Value of Shares		100
Smiths Group Italia Srl	Ordinary		100
JAPAN			
1-1-1 Uchisaiwaicho, Chiyoda-ku, Tokyo			
Smiths Detection Japan Gk	Cash Contribution		100
2222, Kamitoyama Ritto City, Ritto-Shi, Shiga-Ken			
John Crane Japan Inc	Ordinary		70
KAZAKHSTAN			
Atyrau Region, Gatyrau, Station K Arabathan, House Production Site 14, 060000			
John Crane Kazakhstan	Ordinary		100
KOREA, REPUBLIC OF			
Migeundong, Westgate Tower 15F, 70 Chungjeong-Ro, Seodaemun-Gu, Seoul			
John Crane Korea Co Ltd	Ordinary		100
MALAYSIA			
207, Jalan Tun Razak, Suite 13.03, 13th Floor, Menara Tan & Tan, Kuala Lumpur, 50400			
Flexible Ducting Malaysia Sdn Bhd (in liquidation)	Ordinary		100
Menara LGB, 1, Jalan Wan Kadir Taman Tun Dr Ismail, 60000 Kuala Lumpur, WPKL			
John Crane Malaysia Sdn Bhd	Ordinary		100
Smiths Detection Malaysia Sdn Bhd	Ordinary		100

SUBSIDIARY UNDERTAKINGS

Name	Security	Direct (%)	Total (%)
MEXICO			
679, Poniente 152, Vallejo Delegacion Azcapotzalco, Mexico City, 2300			
Industrias John Crane Mexico S.A. de C.V.	Series A; Series B		100
Av. Primero De Mayo Lote 3 Edificio 1B, Prologis Park, Reynosa, 88780			
Tutco De Mexico SRL de CV	Ordinary		100
Carretera Ciudad Victoria Matamoros, Km.173+600, Solonia San Fernando Centro, Tamaulipas, San Fernando, CP 87600			
John Crane Sociedad De Responsibilidad Limitada De Capital Variable	Ordinary		100
Carretera Libre Antiguo Camino Tijuana 20221-B, Fideicomiso el Florido, Tijuana, Baja California, 22234			
Smiths Interconnect Mexico S. de Rl de C.v.	Equity Quotas		100
Paseo De La Reforma 505, Col, Cuauhtemoc, 6500, Ciudad De Mexico			
Smiths Detection Mexico S. de Rl de C.v.	Partes Sociales		100
NETHERLANDS			
Abraham van Stolkweg 118, Rotterdam, 3041 JA			
Amnitec BV	Ordinary		100
Bergen 9 – 17, Barendrecht, Zuid, 2993LR			
John Crane Holland BV	Ordinary		100
Smiths Detection Benelux BV	Ordinary		100
Buckingham House, 361-366 Buckingham Avenue, Slough, Berkshire, SL1 4LU, England			
Smiths Group Holdings Netherlands BV	Ordinary		100
Hydrograaf 25, PO Box 442, 6900 Ak Zevenaar, Duiven, 6921 RS			
Indufil BV	Ordinary		100
NEW ZEALAND			
Deloitte, Level 18, 80 Queen Street, Auckland 1010			
Smiths Detection New Zealand Limited	Ordinary		100
PERU			
Av. Guillermo Dansey 2124, Urbanizacion Industrial Conde, Lima			
John Crane Peru Sac	Common Shares		100
POLAND			
1327, ul. Bielska, Poland, 43-374 Buczkowi			
John Crane Poland Sp Z O.O.	Ordinary		100
PUERTO RICO			
654 Plaza, Suite #933, 654 Munoz Rivera Ave, San Juan, 00918			
John Crane Caribe Ltd	Common Shares		100
RUSSIAN FEDERATION			
Room 501, Floor 5, bld.1, 5-104 Octyabrskaya Emb., St. Petersburg 193079			
Smiths Detection Rus LLC	Ordinary		100
B.savvinsky Per, D.11, Moscow, 119435			
LLC John Crane Rus	Ordinary		100
SAUDI ARABIA			
Dammam Industrial City, Dammam, 3243			
John Crane Saudi Arabia Ltd	Ordinary		100
Building 7, Zone A, Airport road, Business Gate, P.O Box Riyadh 11683, 93597			
Smiths Detection Saudi Arabia Ltd	Shares		100
SINGAPORE			
6 Shenton Way, OUE Downtown #26-00, 068809			
John Crane Singapore Pte Limited	Ordinary		100
20, Pasir Panjang Road, #13-26 Mapletree Business City, 117439			
Smiths Connectors Asia Pte. Ltd.	Ordinary		100
Smiths Detection (Asia Pacific) Pte. Ltd	Ordinary		100
SLOVAKIA			
Dvorakovo nabrezie 10, Bratislava-mestska cast Stare Mesto, 811 02			
John Crane Slovakia SRO	Ordinary		100

SUBSIDIARY UNDERTAKINGS

Name	Security	Direct (%)	Total (%)
SOUTH AFRICA			
2, Jansen Road, Nuffield Industrial Sites, Springs Gauteng, 1559			
Flexibox (Pty) Limited	Ordinary		100
John Crane Pty Ltd	Ordinary		100
SPAIN			
Cemento 1, Torrejon De Ardoz, Madrid			
John Crane Iberica SA	Ordinary		100
SWEDEN			
Knivsta, 74180			
Habia Teknofluor AB	Shares		100
Teknofluor Holding AB	Shares		100
Faltspatsgatan 4, Se-421 30 Vastra Frolunda			
John Crane Sverige AB	Ordinary		100
SWITZERLAND			
Hohenrainstrasse 10, 4133 Pratteln			
John Crane (Switzerland) AG	Ordinary		100
TAIWAN			
324-4, Fong-Jen Road, Renwu District, Kaohsiung City 814			
John Crane Taiwan Co Ltd.	Ordinary		100
THAILAND			
9/311, 31st Floor, Um Tower, Ramkhamhaeng Road, Suanluang District, Bangkok			
John Crane (Thailand) Limited	Ordinary; Pref		100
99/3 Moo 5, Kingkaew Road, Tambol Rajatheva, Amphoe Bangplee, Samutprakarn Province, 10540			
Smiths Detection (Thailand) Limited	Pref; Ordinary		100
TUNISIA			
Zone Industrielle Route De Khniss, Monastir, 5000			
Smiths Connectors Tunisia SARL	Ordinary		100
TURKEY			
Istanbul Sariyer, Huzur Mahallesi, Ahmet Bayman Caddessi, Dis, Reklamcilik Apt No:17-19/1			
John Crane Endustriyel Sizdirmazlik Sistemleri Ltd	Ordinary		100
UNITED ARAB EMIRATES			
Building B10, Industrial Mussaffah, M44, Sector 15, Abu Dhabi			
Smiths Detection Security Systems Llc	Shares		49
Dubai Airport Free Zone, PO Box 48225, Building No. 8WA (West Side), 401, Dubai			
Smiths Detection Middle East Fze	Shares		100
S20113, Jebel Ali Free Zone, 61040			
John Crane Middle East Fze	Ordinary		100
UNITED STATES OF AMERICA			
51 Growth Road, Laconia, NH, 03246			
Lakes Region Tubular Products Inc.	Common Stock		100
116, Pine Street, 3rd Floor, Suite 320, Harrisburg, PA 17101			
Tutco, Llc	Ordinary		100
180 Van Riper Avenue, Elmwood Park, NJ 07407			
Kreisler Industrial Corp	Common Stock		100
Kreisler Manufacturing Corp	Common Stock		100
208 S. Lasalle Street, Suite 814, Chicago, IL, 60604			
John Crane International Inc.	Common Shares		100
815 Forestwood Drive, Romeoville, IL 60446			
United Flexible, Inc.	Common Stock		100
US Hose Corp	Common Stock		100
2801 Red Dog Lane, Knoxville, TN 37914			
Fulton Bellows LLC	Limited Liability Company Interests		100
Corporation Service Company, 251 Little Falls Drive, Wilmington, DE, 19808			
United Flexible Technologies, Inc.	Common Stock		100

SUBSIDIARY UNDERTAKINGS

Name	Security	Direct (%)	Total (%)
The Corporation Trust Company, 1209 Orange Street, Wilmington, DE, 19801			
Asset And Intelligence Management Services, LLC	Ordinary Stock		100
Flexible Technologies, LLC	Ordinary Shares		100
Flex-Tek Group (US) LLC	Ordinary		100
John Crane Group, Llc	Ordinary		100
John Crane Inc	Common; Preferred		100
John Crane USA, Inc	Ordinary		100
MDII Investments LLC	Ordinary		100
Powercam-Houdaille, Inc.	Common Shares		100
Royal Metal Products, LLC	Ordinary		100
Smiths Business Information Services, Inc.	Common Stock		100
Smiths Detection International, Llc	Equity Interests		100
Smiths Detection US Holdings, LLC	Limited Liability Company Interests		100
Smiths Detection US, Llc	Ordinary		100
Smiths Group Services Corp.	Common Stock		100
Smiths Interconnect Americas, Inc.	Common Stock		100
Smiths Interconnect, Inc.	Common Stock		100
Smiths US Innovation LLC	Ordinary		100
CT Corporation System, 9 Capitol Street, Concord, NH 03301			
Smiths Tubular Systems-Laconia, Inc	Ordinary Shares		100
CT Corporation System, 155 Federal Street, Suite 700, Boston, MA 02110			
Titeflex Commercial, Inc.	Ordinary		100
One Corporate Center, Hartford, CT 06103-3220			
Titeflex Corporation	Ordinary		100
The Corporation Trust Company of Nevada, 701 S Carson Street, Suite 200, Carson City, NV, 89701			
Smiths Detection Inc	Common Stock		100
VENEZUELA			
Carretera Vía A Perijá, Km 8 ½, Avenida 50, Local N° 185-72, Zona Industrial El Silencio, Maracaibo, 4001			
John Crane Venezuela CA	Class A; Class B; Common		100
ASSOCIATES			
RUSSIAN FEDERATION			
28, Academica Vedeneeva Street, Perm, Permskiy Region, 614038			
Llc John Crane Iskra	Ordinary		50

Overseas branches

The Company does not operate through any branches. Some Group subsidiary companies have established branch operations outside the UK.