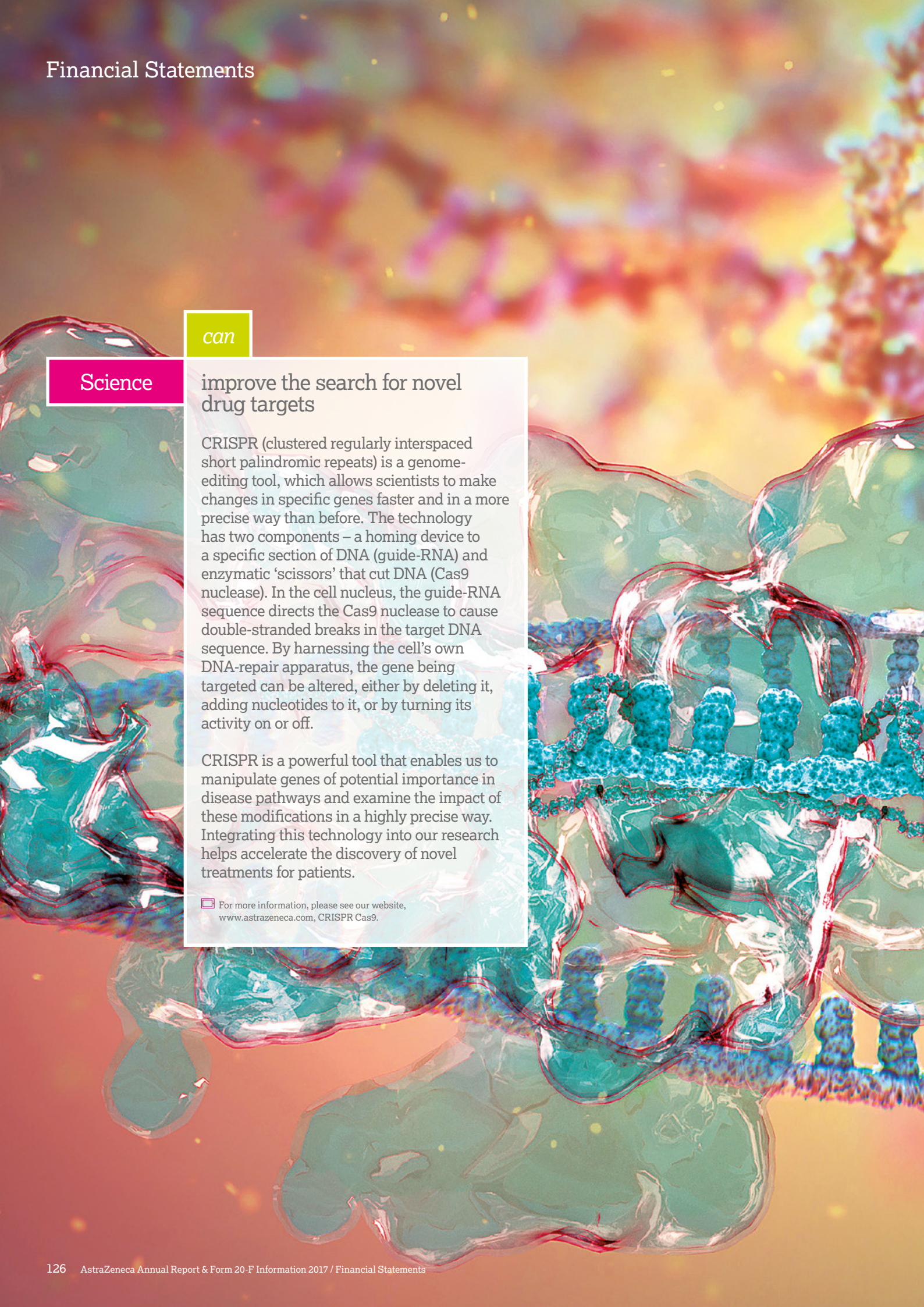
AstraZeneca

What science can do

AstraZeneca Annual Report and Form 20-F Information 2017



can

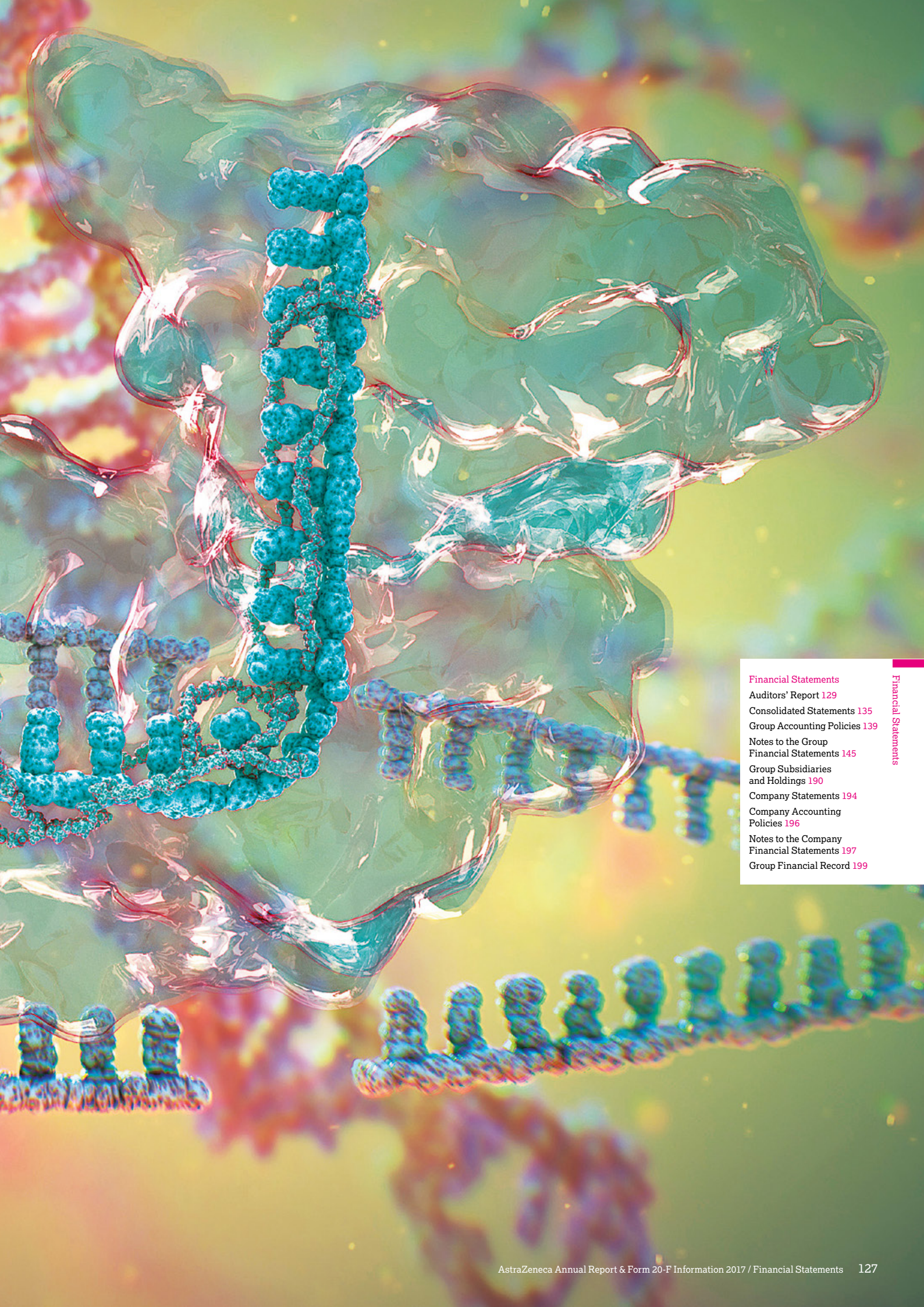
Science

improve the search for novel drug targets

CRISPR (clustered regularly interspaced short palindromic repeats) is a genome-editing tool, which allows scientists to make changes in specific genes faster and in a more precise way than before. The technology has two components – a homing device to a specific section of DNA (guide-RNA) and enzymatic 'scissors' that cut DNA (Cas9 nuclease). In the cell nucleus, the guide-RNA sequence directs the Cas9 nuclease to cause double-stranded breaks in the target DNA sequence. By harnessing the cell's own DNA-repair apparatus, the gene being targeted can be altered, either by deleting it, adding nucleotides to it, or by turning its activity on or off.

CRISPR is a powerful tool that enables us to manipulate genes of potential importance in disease pathways and examine the impact of these modifications in a highly precise way. Integrating this technology into our research helps accelerate the discovery of novel treatments for patients.

For more information, please see our website, www.astrazeneca.com, CRISPR Cas9.



Preparation of the Financial Statements and Directors' Responsibilities

The Directors are responsible for preparing this Annual Report and Form 20-F Information and the Group and Parent Company Financial Statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare Group and Parent Company Financial Statements for each financial year. Under that law they are required to prepare the Group Financial Statements in accordance with IFRSs as issued by the IASB and adopted by the EU, and applicable law, and have elected to prepare the Parent Company Financial Statements in accordance with UK Accounting Standards, including FRS 101 'Reduced Disclosure Framework' and applicable law.

Under company law, the Directors must not approve the Financial Statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Parent Company and of their profit or loss for that period. In preparing each of the Group and Parent Company Financial Statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently
- make judgements and estimates that are reasonable and prudent
- for the Group Financial Statements, state whether they have been prepared in accordance with IFRSs as adopted by the EU
- for the Parent Company Financial Statements, state whether FRS 101 has been followed, subject to any material departures disclosed and explained in the Parent Company Financial Statements
- prepare the Financial Statements on the going concern basis unless it is inappropriate to presume that the Group and the Parent Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Parent Company's transactions and disclose with reasonable accuracy at any time the financial position of the Parent Company and enable them to ensure that its Financial Statements comply with the Companies Act 2006. They have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the Directors are also responsible for preparing a Directors' Report, Strategic Report, Directors' Remuneration Report, Corporate Governance Report and Audit Committee Report that comply with that law and those regulations.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on our website. Legislation in the UK governing the preparation and dissemination of Financial Statements may differ from legislation in other jurisdictions.

Directors' responsibility statement pursuant to DTR 4

The Directors confirm that to the best of our knowledge:

- The Financial Statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole
- The Directors' Report includes a fair review of the development and performance of the business and the position of the issuer and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

On behalf of the Board of Directors on 2 February 2018

Pascal Soriot
Director

Directors' Annual Report on Internal Controls over Financial Reporting

The Directors are responsible for establishing and maintaining adequate internal control over financial reporting. AstraZeneca's internal control over financial reporting is designed to provide reasonable assurance over the reliability of financial reporting and the preparation of consolidated Financial Statements in accordance with generally accepted accounting principles.

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

The Directors assessed the effectiveness of AstraZeneca's internal control over financial reporting as at 31 December 2017 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013). Based on this assessment, the Directors believe that, as at 31 December 2017, the internal control over financial reporting is effective based on those criteria.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited the effectiveness of internal control over financial reporting as at 31 December 2017 and has issued an unqualified report thereon.

Independent Auditors' Report to the Members of AstraZeneca PLC

Report on the audit of the financial statements

Opinion

In our opinion:

- AstraZeneca PLC's Group Financial Statements and Parent Company Financial Statements (the 'financial statements') give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2017 and of the Group's profit and cash flows for the year then ended;
- the Group Financial Statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the Parent Company Financial Statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 'Reduced Disclosure Framework', and applicable law); and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group Financial Statements, Article 4 of the IAS Regulation.

We have audited the financial statements, included within the Annual Report and Form 20-F Information 2017, which comprise: the Consolidated Statement of Financial Position as at 31 December 2017, the Consolidated Statement of Comprehensive Income for the year ended 31 December 2017, the Consolidated Statement of Cash Flows for the year ended 31 December 2017, the Consolidated Statement of Changes in Equity for the year ended 31 December 2017, the Company Balance Sheet as at 31 December 2017, the Company Statement of Changes in Equity for the year ended 31 December 2017; and the notes to the financial statements, which include a description of the significant accounting policies.

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

Separate opinion in relation to IFRSs as issued by the IASB

As explained in the Group Accounting Policies to the financial statements, the Group, in addition to applying IFRSs as adopted by the European Union, has also applied IFRSs as issued by the International Accounting Standards Board (IASB).

In our opinion, the Group Financial Statements have been properly prepared in accordance with IFRSs as issued by the IASB.

Basis for opinion

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

Independence

We remained independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

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

Other than those disclosed in Note 30 to the financial statements, we have provided no non-audit services to the Group or the Parent Company in the period from 1 January 2017 to 31 December 2017.

Our audit approach – overview

Materiality

- Overall Group materiality: $160 million, based on 5% of profit before taxation after adding back (i) asset impairment charges and (ii) fair value movements and discount unwind on contingent consideration, as disclosed in Notes 9 and 18 respectively.
- Overall Parent Company materiality: $75 million, based on 1% of net assets.

Audit scope

- We identified eleven reporting components which required a full scope audit of their complete financial information, either due to their size or risk characteristics. These components are AstraZeneca PLC, AstraZeneca Treasury Limited as well as operating units in the US, UK, Sweden, China, Japan, France, Germany, Russia and Brazil.
- We also identified a further six reporting components which had one or more individual balances that were considered significant to the Group's Financial Statements. For these components our work was solely focussed on balances related to revenue, research & development expense or property, plant and equipment as appropriate.
- Audit procedures were performed centrally over certain shared service functions for transaction processing, IT and in relation to various Group functions, including taxation, pensions, goodwill and intangible assets, treasury and litigation matters, as well as the consolidation.
- Taken together, the components at which audit work was performed accounted for 71% of consolidated revenue and, for full scope audits only, 52% of consolidated profit before taxation.

Key audit matters

- Revenue recognition – rebates, chargebacks and returns
- Carrying value of intangible assets
- Externalisation and collaboration arrangements
- Uncertain tax positions
- Litigation and contingent liabilities
- Impact of finance transformation and other change programs

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we looked at where the directors made subjective judgements, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits we also addressed the risk of management override of internal controls, including evaluating whether there was evidence of bias by the directors that represented a risk of material misstatement due to fraud.

We gained an understanding of the legal and regulatory framework applicable to the Group and the industry in which it operates, and considered the risk of acts by the Group which were contrary to applicable laws and regulations, including fraud. We designed audit procedures to respond to the risk, recognising that the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion. We designed audit procedures that focused on the risk of non-compliance related to laws and regulations, particularly focussing on defence of product, pricing and practices litigation. Our tests included discussions with in-house legal counsel, supplemented with external legal counsel correspondence for certain legal cases. We also inspected underlying support and calculations and assessed and tested the design and operating effectiveness of controls around this process. We did not identify any key audit matters relating to irregularities, including fraud.

Independent Auditors' Report to the Members of AstraZeneca PLC *continued*

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

Key audit matter	How our audit addressed the key audit matter
Revenue recognition – rebates, chargebacks and returns Refer to page 103 (Audit Committee Report), page 140 (Accounting Policies) and page 145 (Note 1) in the Group Financial Statements. In the US the Group sells to customers under various commercial and government mandated contracts and reimbursement arrangements that include rebates, chargebacks and provide a right of return for certain products, of which the most significant are Medicare Part D, Managed Care and Medicaid. These arrangements lead to large deductions to gross sales in arriving at revenue to recognise the obligations for the Group to provide customers with rebates, discounts, allowances and the right of return, for which unsettled amounts are provided for. We focused on this area because rebate, discount, allowance and return arrangements are complex and establishing an appropriate accrual requires significant estimates by the directors. The directors have determined an accrual of $2,606 million to be necessary at 31 December 2017 (31 December 2016: $3,285 million).	We assessed and tested the design and operating effectiveness of the Group's controls over the completeness, assessment for recognition and measurement of rebates, chargebacks and returns and concluded that these operated effectively at year end. We obtained management's calculations for accruals under applicable schemes and assessed the assumptions used by reference to the Group's stated commercial policies, the terms of the applicable contracts, third party data related to patient enrolment in US government funded benefit schemes and historical levels of product returns. We compared the assumptions to contracted prices, historical rebates, discounts, allowances and returns levels (where relevant) and to current payment trends. We also considered the historical accuracy of the Group's estimates in previous years and any prior year true-ups. We formed an independent expectation of the largest elements of the accrual at 31 December 2017 using third party data (where relevant) and compared this expectation to the actual accrual recognised by the Group. Based on the procedures performed, we did not identify any material misstatements in the rebate, chargebacks or return accruals.
Carrying value of intangible assets Refer to page 103 (Audit Committee Report), page 140 (Accounting Policies) The Group has $26,188 million of intangible assets at 31 December 2017 (31 December 2016: $27,586 million), comprising significant product, marketing and distribution rights, licences and software development costs. The carrying values of intangible assets are contingent on future cash flows and there is a risk that the assets will be impaired if cash flows are not in line with expectations. The projections in management's impairment models contain a number of significant judgements and estimates including peak year and erosion sales curves, probability of technical and regulatory success factors and discount rates. Changes in these assumptions could lead to an impairment to the carrying value of intangible assets. As noted in Note 9, assets with minimal headroom are sensitive to relatively small changes in the assumptions.	Our work on intangible assets focussed on assets which were individually significant, had lower levels of headroom or where there have been concerns over assets in previous periods. For these assets we obtained the Group's impairment analyses and tested the reasonableness of key assumptions including revenue growth or decline, the impact of probability of technical and regulatory success factors, the expected loss of drug exclusivity and discount rates applied. We challenged management to substantiate its assumptions including comparing certain assumptions to industry and economic forecasts. We also verified the expected performance of certain assets to the Board approved long range plan. We assessed the integrity of supporting calculations and used our valuation specialists to help us assess the valuation methodology applied by management including the integrity of the underlying models. We assessed management's sensitivity analysis and performed our own for significant assets where headroom was limited, focusing on what we consider to be reasonably possible changes in the key assumptions. As a result of our work, we determined that the impairment charge of $491 million recorded for intangible assets was appropriate. For those intangible assets where management determined that only partial impairments were required, the assumptions made were corroborated with certain information including historical market trends and performance analogues of similar products already in the market. We also evaluated the design and tested the operating effectiveness of management's controls in assessing the carrying value of goodwill and intangible assets. We determined that the controls were designed and operating effectively. We reviewed the disclosures made in the financial statements, including sensitivity analysis and the reasonably possible downsides. We are satisfied that these disclosures are appropriate.

Key audit matter	How our audit addressed the key audit matter
Externalisation and collaboration arrangements Refer to page 102 (Audit Committee Report), page 140 (Accounting Policies) and page 145 (Note 1) in the Group Financial Statements. The Group routinely enters into development and commercialisation arrangements and collaborations with pharmaceutical companies. These include in-license and out-licensing arrangements and other types of complex agreements. The nature of these arrangements mean that the accounting is often inherently complex and judgemental, unusual by definition and presents a higher level of risk. At 31 December 2017, the Group had recognised externalisation revenue of $2,313 million (31 December 2016: $1,683 million).	For each material externalisation revenue transaction we reviewed the underlying contract and management's accounting analysis to understand both the formal terms of the agreement and its commercial substance. We assessed whether components of the transaction were at fair value and whether the rights transferred under the arrangement qualified for revenue recognition having regard to the remaining performance obligations under the arrangement. Where there were ongoing performance obligations we assessed whether an appropriate proportion of revenue had been deferred, including an appropriate margin for the work yet to be performed. Where there was a related intangible asset we assessed whether an appropriate amount of that intangible asset has been derecognised on transfer of the relevant rights. Based on the procedures performed, we consider management judgements reasonable and did not identify any material misstatements.
Uncertain tax positions Refer to page 103 (Audit Committee Report), page 141 (Accounting Policies) and page 188 (Note 28) in the Group Financial Statements. The Group operates in a complex multinational tax environment and is subject to a range of tax risks during the normal course of business including transaction related tax matters and transfer pricing arrangements. Where the amount of tax payable is uncertain, the Group establishes provisions based on management's judgement of the probable amount of the future liability. At 31 December 2017, the Group has recorded provisions of $1,166 million in respect of uncertain tax positions (31 December 2016: $1,166 million).	With the assistance of our local and international tax specialists, we evaluated management's judgements in respect of estimates of tax exposures and contingencies in order to assess the adequacy of the Group's tax provisions. In understanding and evaluating management's judgements, we considered the status of recent and current tax authority audits and enquiries, judgemental positions taken in tax returns and current year estimates and developments in the tax environment. Where appropriate, we also read appropriate documentation to understand the positions reached. We noted that the assumptions and judgements that are required to formulate the provisions mean that there is a broad range of possible outcomes. However, from the evidence obtained, we considered the level of provisioning to be acceptable in the context of the Group Financial Statements taken as a whole. We assessed and tested the design and operating effectiveness of the Group's controls over provisions for uncertain tax positions and concluded that these operated effectively.
Litigation and contingent liabilities Refer to page 103 (Audit Committee Report), page 143 (Accounting Policies) and page 183 (Note 28) in the Group Financial Statements. The pharmaceuticals industry is heavily regulated which increases inherent litigation risk. The Group is engaged in a number of legal actions, including patent litigation, product liability, anti-trust and related litigation. At 31 December 2017, the Group held provisions of $654 million in respect of legal claims (31 December 2016: $438 million). These provisions are based on judgements and accounting estimates made by management in determining the likelihood and magnitude of claims. Accordingly, unexpected adverse outcomes could significantly impact the Group's reported profit and balance sheet position.	We evaluated the design and tested the operating effectiveness of controls in respect of the determination of the provisions. We determined that the operation of the controls provided us with evidence over the completeness, accuracy and valuation of the provisions. We read the summary of litigation matters provided by management and held discussions with the Group's legal counsel. We requested legal letters from some of the Group's external legal advisors with respect to the matters included in the summary. Where appropriate we examined correspondence connected with the cases. For litigation provisions, we tested the calculation of the provisions, assessed the assumptions against third party data, where available, and assessed the estimates against historical trends. We considered management's judgements on the level of provisioning to be appropriate. We also evaluated the appropriateness of the disclosures in Note 19 and Note 28 which we considered appropriate.
Finance transformation and other change programmes During the year the Group's finance transformation and related change programmes continued including the implementation of a new gross to net system, Model N, in the US, the migration of certain management accounting functions to in-house shared service centres and decentralisation of payroll to local territories. Each of these changes poses a potential risk to the continued effective operation of the financial reporting and control environment due to their impact on finance people, processes and systems. The transfer of data and operation of new systems needs to be carefully managed during the transition period to ensure that the integrity and accuracy of data is maintained and the new system operates as intended. Similarly, the transfer of established processes to new locations operated by new people has required close management and control.	We centrally managed the work performed by component audit teams at in-house shared service centres. We performed walkthrough procedures and controls testing both pre and post transition to ensure the effective transition of the processes to shared service centres. We also conducted oversight visits to both in-house and third party shared service centre sites in Group audit scope (namely Poland and Malaysia). Component teams performed audit procedures around the payroll in local territory. We evaluated the design and tested the operating effectiveness of controls around Model N and the centralised processing environment, including IT general controls and controls in respect of data migration between systems. We also substantively tested the accuracy and completeness of data migration into the new systems along with the controls over this process. During the year, a number of internal control weaknesses were identified related to Model N. These were remediated in-year with validation testing performed to ensure operational effectiveness.

Independent Auditors' Report to the Members of AstraZeneca PLC *continued*

We determined that there were no key audit matters applicable to the Parent Company to communicate in our report.

How we tailored the audit scope

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

In establishing the overall approach to the Group audit, we determined the type of work that needed to be performed by us, as the Group engagement team, or component auditors within PwC UK and other PwC network firms operating under our instruction. Where the work was performed by component auditors, we determined the level of involvement we needed to have in the audit work in these territories to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the Group Financial Statements as a whole.

The Group operates in over 100 countries and the size of operations within each territory varies. We identified eleven reporting components in scope for Group reporting. These include AstraZeneca PLC, AstraZeneca Treasury Limited as well as the US, UK, Sweden, China, Japan, France, Germany, Russia and Brazil. These alone represented 71% and 52% of the Group's revenue and absolute profit before tax. We identified these eleven reporting components as those that, in our view, required an audit of their complete financial information, due to their size or risk characteristics.

We also identified a further six reporting components which had one or more individual balances that were considered significant to the Group's Financial Statements. For these components our work solely focussed on balances related to revenue, research & development expense or property, plant and equipment as appropriate.

Audit procedures were performed centrally over certain shared service functions for transaction processing, IT and in relation to various Group functions, including taxation, pensions, goodwill and intangible assets, treasury and litigation matters, as well as the consolidation.

The procedures performed above increased the coverage of Group assets to 85%, the revenue coverage to 83% and the coverage of profit before tax increased to 70%.

In addition, audits for local statutory purposes were accelerated to coincide with the Group reporting timetable at a further three locations with significant findings reported to the Group engagement team.

Materiality

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

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

	Group Financial Statements	Parent Company Financial Statements
Overall materiality	$160 million	$75 million
How we determined it	5% of profit before tax, after adding back asset impairment charges, fair value movements and interest on contingent consideration as disclosed in Notes 9 and 18.	1% of net assets
Rationale for benchmark applied	The reported profit of the Group can fluctuate due to asset impairment charges and fair value and interest movements on contingent consideration. These amounts are prone to year on year volatility and are not necessarily reflective of the operating performance of the Group and as such they have been excluded from the benchmark amount.	We have considered the nature of the business in AstraZeneca PLC (investing activities) and have determine that net assets is most appropriate as a basis for the calculation of the overall materiality level.

For each component in the scope of our Group audit, we allocated a materiality that is less than our overall Group materiality. The range of materiality allocated across components was between $10 million and $100 million.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above $7 million (Group audit) and $7 million (Parent Company audit) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Going concern

In accordance with ISAs (UK) we report as follows:

Reporting obligation	Outcome
We are required to report if we have anything material to add or draw attention to in respect of the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the directors' identification of any material uncertainties to the Group's and the Parent Company's ability to continue as a going concern over a period of at least twelve months from the date of approval of the financial statements.	We have nothing material to add or to draw attention to. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Group's and Parent Company's ability to continue as a going concern.
We are required to report if the directors' statement relating to going concern in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit.	We have nothing to report.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, the Companies Act 2006, (CA06), ISAs (UK) and the Listing Rules of the Financial Conduct Authority (FCA) require us also to report certain opinions and matters as described below (required by ISAs (UK) unless otherwise stated).

Strategic Report and Chairman's Statement

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Chairman's Statement for the year ended 31 December 2017 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements (CA06).

In light of the knowledge and understanding of the Group and Parent Company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Chairman's Statement (CA06).

The directors' assessment of the prospects of the Group and of the principal risks that would threaten the solvency or liquidity of the Group

We have nothing material to add or draw attention to regarding:

- The directors' confirmation on page 63 of the Annual Report that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity.
- The disclosures in the Annual Report that describe those risks and explain how they are being managed or mitigated.
- The directors' explanation on page 63 of the Annual Report as to how they have assessed the prospects of the Group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We have nothing to report having performed a review of the directors' statement that they have carried out a robust assessment of the principal risks facing the Group and statement in relation to the longer-term viability of the Group. Our review was substantially less in scope than an audit and only consisted of making inquiries and considering the directors' process supporting their statements; checking that the statements are in alignment with the relevant provisions of the UK Corporate Governance Code (the 'Code'); and considering whether the statements are consistent with the knowledge and understanding of the Group and Parent Company and their environment obtained in the course of the audit. (Listing Rules).

Other Code Provisions

We have nothing to report in respect of our responsibility to report when:

- The statement given by the directors, on page 128, that they consider the Annual Report taken as a whole to be fair, balanced and understandable, and provides the information necessary for the members to assess the Group's and Parent Company's position and performance, business model and strategy is materially inconsistent with our knowledge of the Group and Parent Company obtained in the course of performing our audit.
- The section of the Annual Report on pages 102–104 describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.
- The directors' statement relating to the Parent Company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified, under the Listing Rules, for review by the auditors.

Directors' Remuneration

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006 (CA06).

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

As explained more fully in the Preparation of the Financial Statements and Directors' Responsibilities set out on page 128, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditors' responsibilities for the audit of the financial statements

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

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

Independent Auditors' Report to the Members of AstraZeneca PLC *continued*

Use of this report

This report, including the opinions, has been prepared for and only for the Parent Company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

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

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the audit committee, we were appointed by the shareholders on 27 April 2017 to audit the financial statements for the year ended 31 December 2017 and subsequent financial periods. This is therefore our first year of uninterrupted engagement.

Richard Hughes (Senior Statutory Auditor)
for and on behalf of
PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London
2 February 2018

Consolidated Statement of Comprehensive Income

for the year ended 31 December

	Notes	2017 $m	2016 $m	2015 $m
Product Sales	1	**20,152**	21,319	23,641
Externalisation Revenue	1	**2,313**	1,683	1,067
Total Revenue		**22,465**	23,002	24,708
Cost of sales		**(4,318)**	(4,126)	(4,646)
Gross profit		**18,147**	18,876	20,062
Distribution costs		**(310)**	(326)	(339)
Research and development expense	2	**(5,757)**	(5,890)	(5,997)
Selling, general and administrative costs	2	**(10,233)**	(9,413)	(11,112)
Other operating income and expense	2	**1,830**	1,655	1,500
Operating profit		**3,677**	4,902	4,114
Finance income	3	**113**	67	46
Finance expense	3	**(1,508)**	(1,384)	(1,075)
Share of after tax losses in associates and joint ventures	10	**(55)**	(33)	(16)
Profit before tax		**2,227**	3,552	3,069
Taxation	4	**641**	(146)	(243)
Profit for the period		**2,868**	3,406	2,826
Other comprehensive income:				
Items that will not be reclassified to profit or loss:				
Remeasurement of the defined benefit pension liability	20	**(242)**	(575)	652
Fair value movements related to own credit risk on bonds designated as fair value through profit and loss		**(9)**	–	–
Tax on items that will not be reclassified to profit or loss	4	**16**	136	(199)
		(235)	(439)	453
Items that may be reclassified subsequently to profit or loss:				
Foreign exchange arising on consolidation	21	**536**	(1,050)	(528)
Foreign exchange arising on designating borrowings in net investment hedges	21	**505**	(591)	(333)
Fair value movements on cash flow hedges		**311**	(115)	–
Fair value movements on cash flow hedges transferred to profit and loss		**(315)**	195	–
Fair value movements on derivatives designated in net investment hedges	21	**(48)**	(4)	14
Amortisation of loss on cash flow hedge		**1**	1	1
Net available for sale (losses)/gains taken to equity		**(83)**	139	(32)
Tax on items that may be reclassified subsequently to profit or loss	4	**(33)**	86	87
		874	(1,339)	(791)
Other comprehensive income/(loss) for the period, net of tax		**639**	(1,778)	(338)
Total comprehensive income for the period		**3,507**	1,628	2,488
Profit attributable to:				
Owners of the Parent		**3,001**	3,499	2,825
Non-controlling interests	24	**(133)**	(93)	1
Total comprehensive income attributable to:				
Owners of the Parent		**3,640**	1,722	2,488
Non-controlling interests	24	**(133)**	(94)	–
Basic earnings per $0.25 Ordinary Share	5	**$2.37**	$2.77	$2.23
Diluted earnings per $0.25 Ordinary Share	5	**$2.37**	$2.76	$2.23
Weighted average number of Ordinary Shares in issue (millions)	5	**1,266**	1,265	1,264
Diluted weighted average number of Ordinary Shares in issue (millions)	5	**1,267**	1,266	1,265
Dividends declared and paid in the period	23	**3,543**	3,540	3,537

All activities were in respect of continuing operations.

$m means millions of US dollars.

Consolidated Statement of Financial Position
at 31 December

	Notes	2017 $m	2016 $m	2015 $m
Assets				
Non-current assets				
Property, plant and equipment	7	**7,615**	6,848	6,413
Goodwill	8	**11,825**	11,658	11,800
Intangible assets	9	**26,188**	27,586	22,646
Investments in associates and joint ventures	10	**103**	99	85
Other investments	11	**933**	727	458
Derivative financial instruments	12	**504**	343	446
Other receivables	13	**847**	901	907
Deferred tax assets	4	**2,189**	1,102	1,294
		50,204	49,264	44,049
Current assets				
Inventories	14	**3,035**	2,334	2,143
Trade and other receivables	15	**5,009**	4,573	6,622
Other investments	11	**1,230**	884	613
Derivative financial instruments	12	**28**	27	2
Income tax receivable		**524**	426	387
Cash and cash equivalents	16	**3,324**	5,018	6,240
		13,150	13,262	16,007
Total assets		**63,354**	62,526	60,056
Liabilities				
Current liabilities				
Interest-bearing loans and borrowings	17	**(2,247)**	(2,307)	(916)
Trade and other payables	18	**(11,641)**	(10,486)	(11,663)
Derivative financial instruments	12	**(24)**	(18)	(9)
Provisions	19	**(1,121)**	(1,065)	(798)
Income tax payable		**(1,350)**	(1,380)	(1,483)
		(16,383)	(15,256)	(14,869)
Non-current liabilities				
Interest-bearing loans and borrowings	17	**(15,560)**	(14,501)	(14,137)
Derivative financial instruments	12	**(4)**	(117)	(1)
Deferred tax liabilities	4	**(3,995)**	(3,956)	(2,665)
Retirement benefit obligations	20	**(2,583)**	(2,186)	(1,974)
Provisions	19	**(347)**	(353)	(444)
Other payables	18	**(7,840)**	(9,488)	(7,457)
		(30,329)	(30,601)	(26,678)
Total liabilities		**(46,712)**	(45,857)	(41,547)
Net assets		**16,642**	16,669	18,509
Equity				
Capital and reserves attributable to equity holders of the Company				
Share capital	22	**317**	316	316
Share premium account		**4,393**	4,351	4,304
Capital redemption reserve		**153**	153	153
Merger reserve		**448**	448	448
Other reserves	21	**1,428**	1,446	1,435
Retained earnings	21	**8,221**	8,140	11,834
		14,960	14,854	18,490
Non-controlling interests	24	**1,682**	1,815	19
Total equity		**16,642**	16,669	18,509

The Financial Statements from pages 135 to 193 were approved by the Board on 2 February 2018 and were signed on its behalf by

Pascal Soriot — Director

Marc Dunoyer — Director

Consolidated Statement of Changes in Equity

for the year ended 31 December

	Share capital $m	Share premium account $m	Capital redemption reserve $m	Merger reserve $m	Other reserves $m	Retained earnings $m	Total attributable to owners $m	Non-controlling interests $m	Total equity $m
At 1 January 2015	316	4,261	153	448	1,420	13,029	19,627	19	19,646
Profit for the period	–	–	–	–	–	2,825	2,825	1	2,826
Other comprehensive income	–	–	–	–	–	(337)	(337)	(1)	(338)
Transfer to other reserves[1]	–	–	–	–	15	(15)	–	–	–
Transactions with owners									
Dividends	–	–	–	–	–	(3,537)	(3,537)	–	(3,537)
Issue of Ordinary Shares	–	43	–	–	–	–	43	–	43
Share-based payments charge for the period (Note 27)	–	–	–	–	–	211	211	–	211
Settlement of share plan awards	–	–	–	–	–	(342)	(342)	–	(342)
Net movement	–	43	–	–	15	(1,195)	(1,137)	–	(1,137)
At 31 December 2015	316	4,304	153	448	1,435	11,834	18,490	19	18,509
Profit for the period	–	–	–	–	–	3,499	3,499	(93)	3,406
Other comprehensive income	–	–	–	–	–	(1,777)	(1,777)	(1)	(1,778)
Transfer to other reserves[1]	–	–	–	–	11	(11)	–	–	–
Transactions with owners									
Dividends	–	–	–	–	–	(3,540)	(3,540)	–	(3,540)
Dividends paid by subsidiary to non-controlling interest	–	–	–	–	–	–	–	(13)	(13)
Acerta put option (Note 24)	–	–	–	–	–	(1,825)	(1,825)	–	(1,825)
Changes in non-controlling interest (Note 25)	–	–	–	–	–	–	–	1,903	1,903
Issue of Ordinary Shares	–	47	–	–	–	–	47	–	47
Share-based payments charge for the period (Note 27)	–	–	–	–	–	241	241	–	241
Settlement of share plan awards	–	–	–	–	–	(281)	(281)	–	(281)
Net movement	–	47	–	–	11	(3,694)	(3,636)	1,796	(1,840)
At 31 December 2016	316	4,351	153	448	1,446	8,140	14,854	1,815	16,669
Profit for the period	**–**	**–**	**–**	**–**	**–**	**3,001**	**3,001**	**(133)**	**2,868**
Other comprehensive income	**–**	**–**	**–**	**–**	**–**	**639**	**639**	**–**	**639**
Transfer to other reserves[1]	**–**	**–**	**–**	**–**	**(18)**	**18**	**–**	**–**	**–**
Transactions with owners									
Dividends	**–**	**–**	**–**	**–**	**–**	**(3,543)**	**(3,543)**	**–**	**(3,543)**
Issue of Ordinary Shares	**1**	**42**	**–**	**–**	**–**	**–**	**43**	**–**	**43**
Share-based payments charge for the period (Note 27)	**–**	**–**	**–**	**–**	**–**	**220**	**220**	**–**	**220**
Settlement of share plan awards	**–**	**–**	**–**	**–**	**–**	**(254)**	**(254)**	**–**	**(254)**
Net movement	**1**	**42**	**–**	**–**	**(18)**	**81**	**106**	**(133)**	**(27)**
At 31 December 2017	**317**	**4,393**	**153**	**448**	**1,428**	**8,221**	**14,960**	**1,682**	**16,642**

[1] Amounts charged or credited to other reserves relate to exchange adjustments arising on goodwill.

Consolidated Statement of Cash Flows

for the year ended 31 December

	Notes	2017 $m	2016 $m	2015 $m
Cash flows from operating activities				
Profit before tax		**2,227**	3,552	3,069
Finance income and expense	3	**1,395**	1,317	1,029
Share of after tax losses of associates and joint ventures	10	**55**	33	16
Depreciation, amortisation and impairment		**3,036**	2,357	2,852
Decrease in trade and other receivables		**83**	1,610	152
Increase in inventories		**(548)**	(343)	(315)
Increase/(decrease) in trade and other payables and provisions		**415**	(341)	114
Gains on disposal of intangible assets	2	**(1,518)**	(1,301)	(961)
Fair value movements on contingent consideration arising from business combinations	18	**109**	(1,158)	(432)
Non-cash and other movements	16	**(524)**	(492)	(350)
Cash generated from operations		**4,730**	5,234	5,174
Interest paid		**(698)**	(677)	(496)
Tax paid		**(454)**	(412)	(1,354)
Net cash inflow from operating activities		**3,578**	4,145	3,324
Cash flows from investing activities				
Non-contingent payments on business combinations		**(1,450)**	(2,564)	(2,446)
Payment of contingent consideration from business combinations	18	**(434)**	(293)	(579)
Purchase of property, plant and equipment		**(1,326)**	(1,446)	(1,328)
Disposal of property, plant and equipment		**83**	82	47
Purchase of intangible assets		**(294)**	(868)	(1,460)
Disposal of intangible assets		**1,376**	1,427	1,130
Purchase of non-current asset investments		**(96)**	(230)	(57)
Disposal of non-current asset investments		**70**	3	93
Movement in short-term investments and fixed deposits		**(345)**	(166)	283
Payments to joint ventures	10	**(76)**	(41)	(45)
Interest received		**164**	140	123
Payments made by subsidiaries to non-controlling interests		**–**	(13)	–
Net cash outflow from investing activities		**(2,328)**	(3,969)	(4,239)
Net cash inflow/(outflow) before financing activities		**1,250**	176	(915)
Cash flows from financing activities				
Proceeds from issue of share capital		**43**	47	43
Issue of loans		**1,988**	2,491	5,928
Repayment of loans		**(1,750)**	–	(884)
Dividends paid		**(3,519)**	(3,561)	(3,486)
Hedge contracts relating to dividend payments		**(20)**	18	(51)
Repayment of obligations under finance leases		**(14)**	(16)	(42)
Movement in short-term borrowings		**336**	(303)	(630)
Net cash (outflow)/inflow from financing activities		**(2,936)**	(1,324)	878
Net decrease in cash and cash equivalents in the period		(1,686)	(1,148)	(37)
Cash and cash equivalents at the beginning of the period		**4,924**	6,051	6,164
Exchange rate effects		**(66)**	21	(76)
Cash and cash equivalents at the end of the period	16	**3,172**	4,924	6,051

Group Accounting Policies

Basis of accounting and preparation of financial information

The Consolidated Financial Statements have been prepared under the historical cost convention, modified to include revaluation to fair value of certain financial instruments as described below, in accordance with the Companies Act 2006 and International Financial Reporting Standards (IFRSs) as adopted by the EU (adopted IFRSs) in response to the IAS regulation (EC 1606/2002). The Consolidated Financial Statements also comply fully with IFRSs as issued by the International Accounting Standards Board (IASB).

During the year, the Group has adopted the amendments to IAS 12 Recognition of Deferred Tax Assets for Unrealised Losses and the amendments to IAS 7 Disclosure Initiative. In 2017, the Group also early adopted the revised IFRS 9 'Financial Instruments' treatment of impact of changes in the Group's own credit risk on the measurement of liabilities held at fair value. The adoptions have not had a significant impact on the Group's profit for the period, net assets or cash flows.

In addition to the above standard amendments and new adoptions, the Group has revised the Statement of Financial Position presentation for the following items:

> With effect from 1 January 2017, the Group has revised the Statement of Financial Position presentation of Deferred tax for one Group entity. This presentation change has resulted in the Group showing gross, rather than net, Deferred tax assets and Deferred tax liabilities of the individual entity. The revised presentation has no impact on net Deferred tax, the Group's Net assets, the Statement of Cash Flows or the Statement of Comprehensive Income. The change has been made as the Group entity has transactions that are subject to tax by two different taxation authorities and has the effect of separately disclosing the deferred tax effects for each country. The Group has assessed this presentational change as not material for revision under IAS 8 'Accounting Polices, Changes in Accounting Estimates and Errors' as the Group has concluded that the user of the accounts would not be adversely impacted and, therefore, the comparative Statement of Financial Position has not been revised for this presentational change. If the 31 December 2016 and 31 December 2015 balances were presented in a comparable way, the Deferred tax assets would have been $2,093m and $1,872m, respectively and the Deferred tax liabilities would have been $4,947m and $3,243m, respectively.

> As detailed in Note 26 to the Financial Statements, the Group has entered into financial derivative transactions with commercial banks. The Group has agreements with some bank counterparties whereby the parties agree to post cash collateral, for the benefit of the other, equivalent to the market valuation of the derivative positions above a predetermined threshold. With effect from the 1 January 2017, the Group has revised the Statement of Financial Position presentation of these collateral balances, so that the cash collateral is included in Cash and cash equivalents, with an offsetting liability presented in current Interest-bearing loans and borrowings and the movement presented in movement in short-term borrowings in the Statement of Cash Flows. This revision has no impact on the Group's Net assets, or the Statement of Comprehensive Income. The Group has assessed this presentational change as not material for revision under IAS 8 as the Group has concluded that the user of the accounts would not be adversely impacted and, therefore, the comparative Statement of Financial Position has not been revised for this presentational change. If the 31 December 2016 and 31 December 2015 balances were presented in a comparable way the Cash and cash equivalents balance would have been $5,260m and $6,691m, respectively. Current Interest-bearing loans and borrowings would have been $2,629m and $1,367m, respectively, and current investments would have been $964m and $613m, respectively.

> Following clarification by the IASB Interpretations Committee in September 2017, the Group has revised its presentation of interest on tax positions. Interest income and expense, which was previously presented in the tax charge in the Statement of Comprehensive Income, is now presented in Finance income and expense and corresponding assets and liabilities, which were previously presented as Income tax receivables and payables in the Statement of Financial Position, are now presented in Trade and other receivables and Trade and other payables. This revision has no impact on the Group's Net assets and cash flows or retained profit. The Group has assessed this presentational change as not material for revision under IAS 8 as the Group has concluded that the user of the accounts would not be adversely impacted and, therefore, the comparative Statement of Comprehensive Income and Statement of Financial Position have not been revised for this presentational change. If the 31 December 2016 and 31 December 2015 balances were presented in a comparable way, Finance income and expense would have been $1,239m and $1,001m, respectively, Tax (credit)/charge would have been $224m and $271m, respectively, Income tax payables would have been $1,287m and $1,291m, respectively and Trade and other payables would have been $10,579m and $11,855m, respectively.

The Company has elected to prepare the Company Financial Statements in accordance with UK Accounting Standards, including FRS 101 'Reduced Disclosure Framework'. These are presented on pages 194 to 198 and the Accounting Policies in respect of Company information is set out on page 196.

The Consolidated Financial Statements are presented in US dollars, which is the Company's functional currency.

In preparing their individual financial statements, the accounting policies of some overseas subsidiaries do not conform with IASB issued IFRSs. Therefore, where appropriate, adjustments are made in order to present the Consolidated Financial Statements on a consistent basis.

Basis for preparation of Financial Statements on a going concern basis

The Group has considerable financial resources available. As at 31 December 2017, the Group has $4.1bn in financial resources (cash balances of $3.3bn and undrawn committed bank facilities of $3.0bn that are available until April 2022, with only $2.2bn of debt due within one year). The Group's revenues are largely derived from sales of products which are covered by patents which provide a relatively high level of resilience and predictability to cash inflows, although our revenue is expected to continue to be significantly impacted by the expiry of patents over the medium term. In addition, government price interventions in response to budgetary constraints are expected to continue to adversely affect revenues in many of our mature markets. However, we anticipate new revenue streams from both recently launched medicines and products in development, and the Group has a wide diversity of customers and suppliers across different geographic areas. Consequently, the Directors believe that, overall, the Group is well placed to manage its business risks successfully. Accordingly, they continue to adopt the going concern basis in preparing the Annual Report and Financial Statements.

Estimates and judgements

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

Judgements include matters such as the determination of operating segments while estimates focus on areas such as carrying values, estimated useful lives, potential obligations and contingent consideration.

AstraZeneca's management considers the following to be the most important accounting policies in the context of the Group's operations.

The accounting policy descriptions set out the areas where judgements and estimates need exercising, the most significant of which are revenue recognition, research and development (including impairment reviews of associated intangible assets), business combinations and goodwill (and contingent consideration arising from business combinations), litigation and environmental liabilities, employee benefits and taxation. Financial risk management policies are detailed in Note 26.

Revenue

Revenues comprise Product Sales and Externalisation Revenue.

Revenues exclude inter-company revenues and value-added taxes.

Product Sales

Product Sales represent net invoice value less estimated rebates, returns and chargebacks. Sales are recognised when the significant risks and rewards of ownership have been transferred to a third party. This is usually when title passes to the customer, either on shipment or on receipt of goods by the customer, depending on local trading terms. In markets where returns are significant, estimates of returns are accounted for at the point revenue is recognised.

For the markets where returns are significant, we estimate the quantity and value of goods which may ultimately be returned at the point of sale. Our returns accruals are based on actual experience over the preceding 12 months for established products together with market-related information such as estimated stock levels at wholesalers and competitor activity which we receive via third party information services. For newly launched products, we use rates based on our experience with similar products or a predetermined percentage.

When a product faces generic competition, particular attention is given to the possible levels of returns and, in cases where the circumstances are such that the level of returns (and hence revenue) cannot be measured reliably, revenues are only recognised when the right of return expires, which is generally on ultimate prescription of the product to patients.

Under certain collaboration agreements which include a profit sharing mechanism, our recognition of Product Sales depends on which party acts as principal in sales to the end customer. In the cases where AstraZeneca acts as principal, we record 100% of sales to the end customer.

Externalisation Revenue

Externalisation Revenue includes income from collaborative arrangements on the Group's products where the Group has sold certain rights associated with those products, but retains a significant ongoing economic interest, through for example the ongoing supply of finished goods or participation in profit share arrangements.

These agreements may include development arrangements, commercialisation arrangements and collaborations. Income may take the form of upfront fees, milestones, profit sharing and/or sales royalties. Generally, upfront fees are recognised upon transfer of the respective licence or other similar rights granted under the agreements. Where the Group provides ongoing services, revenue in respect of this element will be recognised over the duration of those services. Milestones and sales royalties are recognised when highly probable and the amount can be reliably estimated.

Where externalisation revenue is recorded and there is a related intangible asset, an appropriate amount of that intangible asset is charged to cost of sales based on an allocation of cost or value to the rights that have been sold.

Cost of sales

Cost of sales are recognised as the associated revenue is recognised. Cost of sales include manufacturing costs, royalties payable on revenues recognised, movements in provisions for inventories and inventory write offs. Cost of sales also includes partner profit shares arising from collaborations, and foreign exchange gains and losses arising from business trading activities.

Research and development

Research expenditure is recognised in profit in the year in which it is incurred.

Internal development expenditure is capitalised only if it meets the recognition criteria of IAS 38 'Intangible Assets'. Where regulatory and other uncertainties are such that the criteria are not met, the expenditure is recognised in profit and this is almost invariably the case prior to approval of the drug by the relevant regulatory authority. Where, however, recognition criteria are met, intangible assets are capitalised and amortised on a straight-line basis over their useful economic lives from product launch. At 31 December 2017, no amounts have met recognition criteria.

Payments to in-license products and compounds from third parties for new research and development projects (in process research and development) generally take the form of upfront payments, milestones and royalty payments. Where payments made to third parties represent future research and development activities, an evaluation is made as to the nature of the payments. Such payments are expensed if they represent compensation for sub-contracted research and development services not resulting in a transfer of intellectual property. By contrast, payments are capitalised if they represent compensation for the transfer of identifiable intellectual property developed at the risk of the third party. Development milestone payments relating to identifiable intellectual property are capitalised as the milestone is triggered. Any upfront or milestone payments for research activities where there is no associated identifiable intellectual property are expensed. Assets capitalised are amortised, on a straight-line basis, over their useful economic lives from product launch.

Intangible assets relating to products in development are subject to impairment testing annually. All intangible assets are tested for impairment when there are indications that the carrying value may not be recoverable. Any impairment losses are recognised immediately in profit. Intangible assets relating to products which fail during development (or for which development ceases for other reasons) are also tested for impairment and are written down to their recoverable amount (which is usually nil).

If, subsequent to an impairment loss being recognised, development restarts or other facts and circumstances change indicating that the impairment is less or no longer exists, the value of the asset is re-estimated and its carrying value is increased to the recoverable amount, but not exceeding the original value, by recognising an impairment reversal in profit.

Business combinations and goodwill

On the acquisition of a business, fair values are attributed to the identifiable assets and liabilities and contingent liabilities unless the fair value cannot be measured reliably, in which case the value is subsumed into goodwill. Where the Group fully acquires, through a business combination, assets that were previously held in joint operations, the Group has elected not to uplift the book value of the existing interest in the asset held in the joint operation to fair value at the date full control is taken. Where fair values of acquired contingent liabilities cannot be measured reliably, the assumed contingent liability is not recognised but is disclosed in the same manner as other contingent liabilities.

Where not all of the equity of a subsidiary is acquired, the non-controlling interest is recognised either at fair value or at the non-controlling interest's proportionate share of the net assets of the subsidiary, on a case-by-case basis. Put options over non-controlling interests are recognised as a financial liability, with a corresponding entry in either retained earnings or against non-controlling interest reserves on a case-by-case basis.

Future contingent elements of consideration, which may include development and launch milestones, revenue threshold milestones and revenue-based royalties, are fair valued at the date of acquisition using decision-tree analysis with key inputs including probability of success, consideration of potential delays and revenue projections based on the Group's internal forecasts. Unsettled amounts of consideration are held at fair value within payables with changes in fair value recognised immediately in profit.

Goodwill is the difference between the fair value of the consideration and the fair value of net assets acquired.

Goodwill arising on acquisitions is capitalised and subject to an impairment review, both annually and when there is an indication that the carrying value may not be recoverable.

The Group's policy up to and including 1997 was to eliminate goodwill arising upon acquisitions against reserves. Under IFRS 1 'First-time Adoption of International Financial Reporting Standards' and IFRS 3 'Business Combinations', such goodwill will remain eliminated against reserves.

Joint arrangements and associates

The Group has arrangements over which it has joint control and which qualify as joint operations or joint ventures under IFRS 11 'Joint Arrangements'. For joint operations, the Group recognises its share of revenue that it earns from the joint operations and its share of expenses incurred. The Group also recognises the assets associated with the joint operations that it controls and the liabilities it incurs under the joint arrangement. For joint ventures and associates, the Group recognises its interest in the joint venture or associate as an investment and uses the equity method of accounting.

Employee benefits

The Group accounts for pensions and other employee benefits (principally healthcare) under IAS 19 'Employee Benefits'. In respect of defined benefit plans, obligations are measured at discounted present value while plan assets are measured at fair value. The operating and financing costs of such plans are recognised separately in profit; current service costs are spread systematically over the lives of employees and financing costs are recognised in full in the periods in which they arise. Remeasurements of the net defined benefit pension liability, including actuarial gains and losses, are recognised immediately in other comprehensive income.

Where the calculation results in a surplus to the Group, the recognised asset is limited to the present value of any available future refunds from the plan or reductions in future contributions to the plan. Payments to defined contribution plans are recognised in profit as they fall due.

Taxation

The current tax payable is based on taxable profit for the year. Taxable profit differs from reported profit because taxable profit excludes items that are either never taxable or tax deductible or items that are taxable or tax deductible in a different period. The Group's current tax assets and liabilities are calculated using tax rates that have been enacted or substantively enacted by the reporting date.

Deferred tax is provided using the balance sheet liability method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax assets are recognised to the extent that it is probable that taxable profit will be available against which the asset can be utilised. This requires judgements to be made in respect of the availability of future taxable income.

No deferred tax asset or liability is recognised in respect of temporary differences associated with investments in subsidiaries and branches where the Group is able to control the timing of reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

The Group's deferred tax assets and liabilities are calculated using tax rates that are expected to apply in the period when the liability is settled or the asset realised based on tax rates that have been enacted or substantively enacted by the reporting date.

Accruals for tax contingencies require management to make judgements and estimates of exposures in relation to tax audit issues. Tax benefits are not recognised unless the tax positions will probably be sustained based upon management's interpretation of applicable laws and regulations and the likelihood of settlement.

Once considered to be probable, management reviews each material tax benefit to assess whether a provision should be taken against full recognition of the benefit on the basis of potential settlement through negotiation and/or litigation. Accruals for tax contingencies are measured using the single best estimate of likely outcome approach.

Further details of the estimates and assumptions made in determining our recorded liability for transfer pricing contingencies and other tax contingencies are included in Note 28 to the Financial Statements.

Share-based payments

All plans are assessed and have been classified as equity settled. The grant date fair value of employee share plan awards is calculated using a modified version of the binomial model. In accordance with IFRS 2 'Share-based Payment', the resulting cost is recognised in profit over the vesting period of the awards, being the period in which the services are received. The value of the charge is adjusted to reflect expected and actual levels of awards vesting, except where the failure to vest is as a result of not meeting a market condition. Cancellations of equity instruments are treated as an acceleration of the vesting period and any outstanding charge is recognised in profit immediately.

Group Accounting Policies
continued

Property, plant and equipment
The Group's policy is to write off the difference between the cost of each item of property, plant and equipment and its residual value over its estimated useful life on a straight-line basis. Assets under construction are not depreciated.

Reviews are made annually of the estimated remaining lives and residual values of individual productive assets, taking account of commercial and technological obsolescence as well as normal wear and tear. It is impractical to calculate average asset lives exactly. However, the total lives range from approximately 10 to 50 years for buildings, and three to 15 years for plant and equipment. All items of property, plant and equipment are tested for impairment when there are indications that the carrying value may not be recoverable. Any impairment losses are recognised immediately in profit.

Borrowing costs
The Group has no borrowing costs with respect to the acquisition or construction of qualifying assets. All other borrowing costs are recognised in profit as incurred and in accordance with the effective interest rate method.

Leases
Leases are classified as finance leases if they transfer substantially all the risks and rewards incidental to ownership, otherwise they are classified as operating leases. Assets and liabilities arising on finance leases are initially recognised at fair value or, if lower, the present value of the minimum lease payments. The discount rate used in calculating the present value of the minimum lease payments is the interest rate implicit in the lease. Finance charges under finance leases are allocated to each reporting period so as to produce a constant periodic rate of interest on the remaining balance of the finance liability. Rentals under operating leases are charged to profit on a straight-line basis.

Subsidiaries
A subsidiary is an entity controlled, directly or indirectly, by AstraZeneca PLC. Control is regarded as the exposure or rights to the variable returns of the entity when combined with the power to affect those returns.

The financial results of subsidiaries are consolidated from the date control is obtained until the date that control ceases.

Inventories
Inventories are stated at the lower of cost and net realisable value. The first in, first out or an average method of valuation is used. For finished goods and work in progress, cost includes directly attributable costs and certain overhead expenses (including depreciation). Selling expenses and certain other overhead expenses (principally central administration costs) are excluded. Net realisable value is determined as estimated selling price less all estimated costs of completion and costs to be incurred in selling and distribution.

Write-downs of inventory occur in the general course of business and are recognised in cost of sales.

Trade and other receivables
Financial assets included in Trade and other receivables are recognised initially at fair value. Subsequent to initial recognition they are measured at amortised cost using the effective interest rate method, less any impairment losses. Trade receivables that are subject to debt factoring arrangements are derecognised if they meet the conditions for derecognition detailed in IAS 39 'Financial Instruments: Recognition and Measurement'.

Trade and other payables
Financial liabilities included in Trade and other payables are recognised initially at fair value. Subsequent to initial recognition they are measured at amortised cost using the effective interest rate method.

Financial instruments
The Group's financial instruments include interests in leases, trade and other receivables and payables, liabilities for contingent consideration and put options under business combinations, and rights and obligations under employee benefit plans which are dealt with in specific accounting policies.

The Group's other financial instruments include:

> cash and cash equivalents
> fixed deposits
> other investments
> bank and other borrowings
> derivatives

Cash and cash equivalents
Cash and cash equivalents comprise cash in hand, current balances with banks and similar institutions, and highly liquid investments with maturities of three months or less when acquired. They are readily convertible into known amounts of cash and are held at amortised cost.

Fixed deposits
Fixed deposits, principally comprising funds held with banks and other financial institutions, are initially measured at fair value, plus direct transaction costs, and are subsequently measured at amortised cost using the effective interest rate method at each reporting date. Changes in carrying value are recognised in profit.

Other investments
Where investments have been classified as held for trading, they are measured initially at fair value and subsequently remeasured to fair value at each reporting date. Changes in fair value are recognised in profit.

In all other circumstances, the investments are classified as 'available for sale', initially measured at fair value (including direct transaction costs) and subsequently remeasured to fair value at each reporting date. Changes in carrying value due to changes in exchange rates on monetary available for sale investments or impairments are recognised in profit within Other operating income and expense. All other changes in fair value are recognised in Other comprehensive income.

Impairments are recorded in profit when there is a decline in the value of an investment that is deemed to be other than temporary. On disposal of the investment, the cumulative amount recognised in Other comprehensive income is recognised in profit as part of the gain or loss on disposal.

Bank and other borrowings

The Group uses derivatives, principally interest rate swaps, to hedge the interest rate exposure inherent in a portion of its fixed interest rate debt. In such cases the Group will either designate the debt as fair value through profit or loss when certain criteria are met or as the hedged item under a fair value hedge.

If the debt instrument is designated as fair value through profit or loss, the debt is initially measured at fair value (with direct transaction costs being included in profit as an expense) and is remeasured to fair value at each reporting date with changes in carrying value being recognised in profit (along with changes in the fair value of the related derivative), with the exception of changes in the fair value of the debt instrument relating to own credit risk which are recorded in Other comprehensive income in accordance with IFRS 9. Such a designation has been made where this significantly reduces an accounting mismatch which would result from recognising gains and losses on different bases.

If the debt is designated as the hedged item under a fair value hedge, the debt is initially measured at fair value (with direct transaction costs being amortised over the life of the debt) and is remeasured for fair value changes in respect of the hedged risk at each reporting date with changes in carrying value being recognised in profit (along with changes in the fair value of the related derivative).

If the debt is designated in a cash flow hedge, the debt is measured at amortised cost (with gains or losses taken to profit and direct transaction costs being amortised over the life of the debt). The related derivative is remeasured for fair value changes at each reporting date with the portion of the gain or loss on the derivative that is determined to be an effective hedge recognised in Other comprehensive income. The amounts that have been recognised in Other comprehensive income are reclassified to profit in the same period that the hedged forecast cash flows affect profit.

Other interest-bearing loans are initially measured at fair value (with direct transaction costs being amortised over the life of the loan) and are subsequently measured at amortised cost using the effective interest rate method at each reporting date. Changes in carrying value are recognised in profit.

Derivatives

Derivatives are initially measured at fair value (with direct transaction costs being included in profit as an expense) and are subsequently remeasured to fair value at each reporting date. Changes in carrying value are recognised in profit.

Foreign currencies

Foreign currency transactions, being transactions denominated in a currency other than an individual Group entity's functional currency, are translated into the relevant functional currencies of individual Group entities at average rates for the relevant monthly accounting periods, which approximate to actual rates.

Monetary assets and liabilities arising from foreign currency transactions are retranslated at exchange rates prevailing at the reporting date. Exchange gains and losses on loans and on short-term foreign currency borrowings and deposits are included within Finance expense. Exchange differences on all other foreign currency transactions are recognised in Operating profit in the individual Group entity's accounting records.

Non-monetary items arising from foreign currency transactions are not retranslated in the individual Group entity's accounting records.

In the Consolidated Financial Statements, income and expense items for Group entities with a functional currency other than US dollars are translated into US dollars at average exchange rates, which approximate to actual rates, for the relevant accounting periods. Assets and liabilities are translated at the US dollar exchange rates prevailing at the reporting date. Exchange differences arising on consolidation are recognised in Other comprehensive income.

If certain criteria are met, non-US dollar denominated loans or derivatives are designated as net investment hedges of foreign operations. Exchange differences arising on retranslation of net investments, and of foreign currency loans which are designated in an effective net investment hedge relationship, are recognised in Other comprehensive income in the Consolidated Financial Statements. Foreign exchange derivatives hedging net investments in foreign operations are carried at fair value. Effective fair value movements are recognised in Other comprehensive income, with any ineffectiveness taken to profit. Gains and losses accumulated in the translation reserve will be recycled to profit when the foreign operation is sold.

Litigation and environmental liabilities

AstraZeneca is involved in legal disputes, the settlement of which may involve cost to the Group. Provision is made where an adverse outcome is probable and associated costs, including related legal costs, can be estimated reliably. In other cases, appropriate disclosures are included.

Where it is considered that the Group is more likely than not to prevail, or in the rare circumstances where the amount of the legal liability cannot be estimated reliably, legal costs involved in defending the claim are charged to profit as they are incurred.

Where it is considered that the Group has a valid contract which provides the right to reimbursement (from insurance or otherwise) of legal costs and/or all or part of any loss incurred or for which a provision has been established, the best estimate of the amount expected to be received is recognised as an asset only when it is virtually certain.

AstraZeneca is exposed to environmental liabilities relating to its past operations, principally in respect of soil and groundwater remediation costs. Provisions for these costs are made when there is a present obligation and where it is probable that expenditure on remedial work will be required and a reliable estimate can be made of the cost. Provisions are discounted where the effect is material.

Group Accounting Policies
continued

Impairment

The carrying values of non-financial assets, other than inventories and deferred tax assets, are reviewed at least annually to determine whether there is any indication of impairment. For goodwill, intangible assets under development and for any other assets where such indication exists, the asset's recoverable amount is estimated based on the greater of its value in use and its fair value less cost to sell. In assessing the recoverable amount, the estimated future cash flows, adjusted for the risks specific to each asset, are discounted to their present value using a discount rate that reflects current market assessments of the time value of money, the general risks affecting the pharmaceutical industry and other risks specific to each asset. For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash flows of other assets. Impairment losses are recognised immediately in profit.

International accounting transition

On transition to using adopted IFRSs in the year ended 31 December 2005, the Group took advantage of several optional exemptions available in IFRS 1 'First-time Adoption of International Financial Reporting Standards'. The major impacts which are of continuing importance are detailed below:

- Business combinations – IFRS 3 'Business Combinations' has been applied from 1 January 2003, the date of transition, rather than being applied fully retrospectively. As a result, the combination of Astra and Zeneca is still accounted for as a merger, rather than through purchase accounting. If purchase accounting had been adopted, Zeneca would have been deemed to have acquired Astra.
- Cumulative exchange differences – the Group chose to set the cumulative exchange difference reserve at 1 January 2003 to nil.

Applicable accounting standards and interpretations issued but not yet adopted

IFRS 9 'Financial Instruments' is effective for accounting periods beginning on or after 1 January 2018 and will replace existing accounting standards. It is applicable to financial assets and liabilities, and will introduce changes to existing accounting concerning classification and measurement, impairment (introducing an expected-loss method), hedge accounting, and on the treatment of gains arising from the impact of own credit risk on the measurement of liabilities held at fair value. The standard was endorsed by the EU on 22 November 2016. The Group early adopted the treatment of fair value changes arising from changes in own credit risk from 1 January 2017 and will adopt the remainder of the standard from 1 January 2018. The principal impact will be that equity investments currently classified as available for sale will be re-categorised on initial application and the Group will elect to record fair value movements on certain non-current equity investments in Other comprehensive income. Fair value movements on other equity investments will be recorded in profit. The other changes introduced will have an insignificant impact on the Group. In particular, given the general quality and short-term nature of our trade receivables, there will be no material impact on the introduction of an expected-loss impairment method and, following a review of our existing hedging arrangements, these have been assessed as compliant with the new rules.

IFRS 15 'Revenue from Contracts with Customers' is effective for accounting periods beginning on or after 1 January 2018 and will replace existing accounting standards. It provides enhanced detail on the principle of recognising revenue to reflect the transfer of goods and services to customers at a value which the Company expects to be entitled to receive. The standard also updates revenue disclosure requirements. The standard was endorsed by the EU on 22 September 2016. The Group will retrospectively apply the standard from 1 January 2018 recognising the cumulative effect of initially applying the standard as an adjustment to the opening balance of retained earnings.

The standard will not have a material impact on our revenue streams from the supply of goods and associated rebates and returns provisions. The timing of the recognition of product sales and the basis for our estimates of sales deductions under IAS 18 are consistent with those to be adopted under IFRS 15.

Our present accounting for externalisation transactions under IAS 18 includes an analysis of the performance obligations under the arrangement and upfront revenue recognition requires the transfer of substantive rights, for example a licence to use our intellectual property and an appropriate allocation of revenue to the remaining performance obligations. While the basis for such allocation is different in IFRS 15, the impact of the adoption of the new standard on our historical allocations is not material. The licences we grant are typically rights to use our intellectual property, which does not change during the period of the licence. Those licences are generally unique and therefore the basis of allocation of revenue to performance obligations makes use of the residual approach as permitted by IFRS 15. The related sales milestones and royalties to these licences qualify for the royalty exemption available under IFRS 15 and will continue to be recognised as the underlying sales are made. Furthermore, there is no material change to the assessment of whether the performance obligations are distinct from applying the new standard.

IFRS 16 'Leases' is effective for accounting periods beginning on or after 1 January 2019 and will replace IAS 17 'Leases'. It will eliminate the classification of leases as either operating leases or finance leases and, instead, introduce a single lessee accounting model. The standard was endorsed by the EU on 31 October 2017. The adoption of IFRS 16 will result in the Group recognising lease liabilities, and corresponding 'right to use' assets, for agreements that are currently classified as operating leases. See Note 29 for further details on operating leases currently held.

In addition, the following amendments and interpretations have been issued:

- Amendments to IFRS 10 and IAS 28 Sale or Contribution of Assets between an Investor and its Associate or Joint Venture. The IASB has deferred these amendments until a date to be determined by the IASB.
- Amendments to IFRS 2 Classification and Measurement of Share-based Payment Transactions, effective for periods beginning on or after 1 January 2018.
- IFRIC 22 'Foreign Currency Transactions and Advance Consideration', effective for periods beginning on or after 1 January 2018.
- IFRIC 23 'Uncertainty over Income Tax Treatments', effective for periods beginning on or after 1 January 2019.

The above amendments and interpretations are not expected to have a significant impact on the Group's net results, net assets or disclosures although the impact of IFRIC 23 will be subject to further assessment in 2018. The amendments have yet to be endorsed by the EU.

1 Revenue

Product Sales

	2017 $m	2016 $m	2015 $m
Oncology:			
Tagrisso	**955**	423	19
Faslodex	**941**	830	704
Zoladex	**735**	816	816
Iressa	**528**	513	543
Lynparza	**297**	218	94
Arimidex	**217**	232	250
Casodex	**215**	247	267
Others	**136**	104	132
	4,024	3,383	2,825
Cardiovascular and Metabolic Diseases:			
Crestor	**2,365**	3,401	5,017
Brilinta	**1,079**	839	619
Farxiga	**1,074**	835	492
Seloken/Toprol-XL	**695**	737	710
Onglyza	**611**	720	786
Bydureon	**574**	578	580
Atacand	**300**	315	358
Byetta	**176**	254	316
Plendil	**110**	136	234
Others	**282**	301	377
	7,266	8,116	9,489
Respiratory:			
Symbicort	**2,803**	2,989	3,394
Pulmicort	**1,176**	1,061	1,014
Daliresp/Daxas	**198**	154	104
Tudorza/Eklira	**150**	170	190
Others	**379**	379	285
	4,706	4,753	4,987
Other:			
Nexium	**1,952**	2,032	2,496
Synagis	**687**	677	662
Seroquel XR	**332**	735	1,025
Losec/Prilosec	**271**	276	340
Local Anaesthetics	**228**	329	404
Seroquel IR	**179**	231	250
Movantik	**122**	91	29
FluMist/Fluenz	**78**	104	288
Diprivan	**64**	143	200
Merrem	**37**	201	241
Others	**206**	248	405
	4,156	5,067	6,340
Product Sales	**20,152**	21,319	23,641

Externalisation Revenue

Externalisation Revenue in 2017 was $2,313m (2016: $1,683m; 2015: $1,067m).

In 2017, Externalisation Revenue includes $1,247m from MSD for the global co-development and commercialisation of *Lynparza* and selumetinib, $250m from TerSera for the rights to *Zoladex* in the US and Canada, $150m milestone income from Aspen for our anaesthetics medicines portfolio, $150m milestone income on the out-licence of brodalumab to Valeant and LEO Pharma, and $127m from Sanofi for the co-development and co-commercialisation of MEDI8897.

In 2016, Externalisation Revenue includes $520m from Aspen for our anaesthetics medicines portfolio, $298m from the sale of commercialisation rights for *Plendil* in China to CMS, and $175m from Aralez for the US rights to *Toprol-XL*.

In 2015, Externalisation Revenue includes $450m on entering into a collaboration with Celgene on durvalumab, $200m on entering into a collaboration with Daiichi Sankyo on *Movantik* and $100m on entering into a collaboration with Valeant on brodalumab.

Royalty income of $108m (2016: $119m; 2015: $87m) is included in Externalisation Revenue.

2 Operating profit

Operating profit includes the following significant items:

Selling, general and administrative costs

In 2017, Selling, general and administrative costs includes a charge of $208m (2016: credit of $999m; 2015: credit of $378m) resulting from changes in the fair value of contingent consideration arising from the acquisition of the diabetes alliance from BMS. These adjustments reflect revised estimates for future sales performance for the products acquired and, as a result, revised estimates for future royalties payable.

In 2017, Selling, general and administrative costs also includes a credit of $209m (2016: credit of $41m; 2015: $nil) resulting from changes in estimates of the cash flows arising from the put option over the non-controlling interest in Acerta Pharma.

In 2017, Selling, general and administrative costs also includes a total of $241m (2016: $223m; 2015: $313m) of legal provisions relating to a number of legal proceedings in various jurisdictions in relation to several marketed products.

Further details of impairment charges for 2017, 2016 and 2015 are included in Notes 7 and 9.

Other operating income and expense

	2017 $m	2016 $m	2015 $m
Royalties			
Income	**132**	406	322
Amortisation	**(45)**	(86)	(114)
Gains on disposal of intangible assets	**1,518**	1,301	961
Gains on disposal of short-term investments	**161**	–	–
Net gains on disposal of other non-current assets	**24**	29	85
Impairment of property, plant and equipment	**(78)**	–	–
Impairment of intangible assets	**–**	–	(64)
Other income	**286**	146	327
Other expense	**(168)**	(141)	(17)
Other operating income and expense	**1,830**	1,655	1,500

Royalty amortisation relates to intangible assets recorded in respect of income streams acquired with MedImmune, and upon the restructuring of a historical joint venture with MSD.

Gains on disposal of intangible assets in 2017 includes $555m on the disposal of the remaining rights to the global anaesthetics portfolio, $301m on disposal of Europe rights to *Seloken* and $193m on disposal of the global rights to *Zomig*.

Gains on disposal of intangible assets in 2016 includes $368m on the disposal of the small molecule antibiotics assets in most markets outside the US, $321m on the disposal of Rest of World rights to *Rhinocort Aqua*, $231m on the disposal of global rights to MEDI2070 and $183m on the disposal of Rest of World rights to *Imdur*.

Gains on disposal of intangible assets in 2015 includes $380m on the disposal of US rights to *Entocort*, $215m on the disposal of Rest of World rights to *Entocort*, $193m on the disposal of global rights to *Myalept* and $165m on the disposal of global rights to *Caprelsa*.

Restructuring costs

The tables below show the costs that have been charged in respect of restructuring programmes by cost category and type. Severance provisions are detailed in Note 19.

	2017 $m	2016 $m	2015 $m
Cost of sales	**181**	130	158
Research and development expense	**201**	178	258
Selling, general and administrative costs	**347**	823	618
Other operating income and expense	**78**	(24)	–
Total charge	**807**	1,107	1,034

	2017 $m	2016 $m	2015 $m
Severance costs	**176**	505	298
Accelerated depreciation and impairment	**141**	46	81
Relocation costs	**6**	18	34
Other	**484**	538	621
Total charge	**807**	1,107	1,034

Other costs are those incurred in designing and implementing the Group's various restructuring initiatives, including costs of decommissioning sites impacted by changes to our global footprint, temporary lease costs during relocation, internal project costs, and external consultancy fees.

2 Operating profit *continued*

Financial instruments

Included within operating profit are the following net gains and losses on financial instruments:

	2017 $m	2016 $m	2015 $m
Losses on forward foreign exchange contracts	**(6)**	(216)	(22)
(Losses)/gains on receivables and payables	**(30)**	132	(36)
Gains on disposal of short-term investments	**161**	–	–
Gains on other available for sale investments	**34**	–	74
Total	**159**	(84)	16

Gains and losses on available for sale investments includes gains of $4m (2016: $nil; 2015: gains of $43m) which have been reclassified from other comprehensive income.

3 Finance income and expense

	2017 $m	2016 $m	2015 $m
Finance income			
Returns on fixed deposits and equity securities	**8**	8	8
Returns on short-term deposits	**62**	35	28
Fair value gains on debt and interest rate swaps	**4**	–	10
Net exchange gains	**–**	8	–
Discount unwind on other long-term assets	**10**	16	–
Interest on tax receivables	**29**	–	–
Total	**113**	67	46
Finance expense			
Interest on debt and commercial paper	**(612)**	(565)	(361)
Interest on overdrafts, finance leases and other financing costs	**(52)**	(52)	(31)
Net interest on post-employment defined benefit plan net liabilities (Note 20)	**(49)**	(63)	(77)
Net exchange losses	**(148)**	–	(36)
Discount unwind on contingent consideration arising from business combinations (Note 18)	**(402)**	(497)	(524)
Discount unwind on other long-term liabilities	**(245)**	(190)	(46)
Fair value losses on debt and interest rate swaps	**–**	(17)	–
Total	**(1,508)**	(1,384)	(1,075)
Net finance expense	**(1,395)**	(1,317)	(1,029)

Financial instruments

Included within finance income and expense are the following net gains and losses on financial instruments:

	2017 $m	2016 $m	2015 $m
Interest and fair value adjustments in respect of debt designated at fair value through profit or loss, net of derivatives	**8**	(14)	6
Interest and changes in carrying values of debt designated as hedged items, net of derivatives	**(35)**	(21)	(10)
Interest and fair value changes on fixed and short-term deposits, equity securities and other derivatives	**52**	74	46
Interest on debt, overdrafts, finance leases and commercial paper held at amortised cost	**(559)**	(553)	(384)

Fair value losses of $9m (2016: $29m fair value losses; 2015: $30m fair value losses) on interest rate fair value hedging instruments and $9m fair value gains (2016: $30m fair value gains; 2015: $30m fair value gains) on the related hedged items have been included within interest and changes in carrying values of debt designated as hedged items, net of derivatives. All fair value hedge relationships were effective during the year.

Fair value losses of $10m (2016: $12m fair value losses; 2015: $5m fair value losses) on derivatives related to debt instruments designated at fair value through profit or loss and $3m fair value gains (2016: $9m fair value gains; 2015: $15m fair value gains) on debt instruments designated at fair value through profit or loss have been included within interest and fair value adjustments in respect of debt designated at fair value through profit or loss, net of derivatives. Ineffectiveness on the net investment hedge taken to profit was $nil (2016: $nil; 2015: $nil).

4 Taxation

Taxation recognised in the consolidated statement of comprehensive income is as follows:

	2017 $m	2016 $m	2015 $m
Current tax expense			
Current year	**665**	384	1,037
Adjustment to prior years	**(287)**	(14)	(404)
Total	**378**	370	633
Deferred tax expense			
Origination and reversal of temporary differences	**(1,113)**	(94)	(482)
Adjustment to prior years	**94**	(130)	92
Total	**(1,019)**	(224)	(390)
Taxation recognised in the profit for the period	**(641)**	146	243

Taxation relating to components of other comprehensive income is as follows:

	2017 $m	2016 $m	2015 $m
Current and deferred tax			
Items that will not be reclassified to profit or loss:			
Remeasurement of the defined benefit liability	**24**	110	(133)
Share-based payments	**9**	51	(8)
Deferred tax impact of reduction in US and other tax rates	**(17)**	(25)	(58)
Total	**16**	136	(199)
Items that may be reclassified subsequently to profit or loss:			
Foreign exchange arising on consolidation	**(79)**	63	(8)
Foreign exchange arising on designating borrowings in net investment hedges	**14**	83	80
Net available for sale losses/(gains) recognised in other comprehensive income	**2**	(61)	14
Other	**–**	1	1
Deferred tax impact of reduction in US tax rate	**30**	–	–
Total	**(33)**	86	87
Taxation relating to components of other comprehensive income	**(17)**	222	(112)

The tax rate of (29)% in the year benefited from a favourable net adjustment of $617m to deferred taxes, reflecting the recently reduced US Federal Income Tax rate and non-taxable remeasurements of acquisition-related liabilities. Additionally, there was a $472m benefit to the tax rate, reflecting the favourable impact of UK Patent Box profits; the recognition of previously unrecognised tax losses; and reductions in tax provisions and provision to return adjustments arising on the expiry of statute of limitations and favourable progress of discussions with tax authorities.

Absent these benefits, the tax rate for the year would have been 22%.

The cash tax paid for the year was $454m which was 20% of profit before tax.

Taxation has been provided at current rates on the profits earned for the periods covered by the Group Financial Statements. The 2017 prior period current tax adjustment relates mainly to net reductions in provisions for tax contingencies totalling $105m and tax accrual to tax return adjustments. The 2016 prior period current tax adjustment relates mainly to net reductions in provisions for tax contingencies totalling $67m and tax accrual to tax return adjustments. The 2015 prior period current tax adjustment relates mainly to a $186m tax benefit following agreement of US federal tax liabilities of open years to 2008, net reductions in provisions for tax contingencies totalling $259m and tax accrual to tax return adjustments.

The 2017 prior period deferred tax adjustments relate mainly to tax accrual to return adjustments. The 2016 prior period deferred tax adjustments relate mainly to tax accrual to return adjustments and releases in provisions for tax contingencies. The 2015 prior period deferred tax adjustments relate mainly to tax accrual to return adjustments.

To the extent that dividends remitted from overseas subsidiaries, joint ventures and associates are expected to result in additional taxes, appropriate amounts have been provided for. No deferred tax has been provided for unremitted earnings of Group companies overseas as these are considered permanently employed in the business of these companies. Unremitted earnings may be liable to overseas taxes and/or UK taxation (after allowing for double tax relief) if distributed as dividends. The aggregate amount of temporary differences associated with investments in subsidiaries and branches for which deferred tax liabilities have not been recognised totalled approximately $8,359m at 31 December 2017 (2016: $6,884m; 2015: $6,957m).

Factors affecting future tax charges

As a group with worldwide operations, AstraZeneca is subject to several factors that may affect future tax charges, principally the levels and mix of profitability in different jurisdictions, transfer pricing regulations, tax rates imposed and tax regime reforms. In December 2017, the US tax regime was reformed through enactment of the Tax Cuts and Jobs Act. This included a substantial reduction to the federal tax rate from 35% to 21% along with other changes.

Details of the material tax exposures and items currently under audit, negotiation and review are set out in Note 28.

4 Taxation *continued*

Tax reconciliation to UK statutory rate

The table below reconciles the UK statutory tax charge to the Group's total tax charge/(credit):

	2017 $m	2016 $m	2015 $m
Profit before tax	**2,227**	3,552	3,069
Notional taxation charge at UK corporation tax rate of 19.25% (2016: 20%; 2015: 20.25%)	**429**	710	621
Differences in overseas tax rates	**(212)**	(233)	(144)
Deferred tax credit relating to reduction in US and other tax rates[1]	**(616)**	(16)	(25)
Unrecognised deferred tax asset[2]	**(105)**	242	149
Items not deductible for tax purposes	**203**	132	29
Items not chargeable for tax purposes	**(14)**	(7)	–
Other items[3]	**(133)**	(538)	(75)
Adjustments in respect of prior periods[4, 5]	**(193)**	(144)	(312)
Total tax (credit)/charge for the year	**(641)**	146	243

[1] The 2017 item relates to the reduction in the US Federal Income Tax rate from 35% to 21% effective from 1 January 2018 (credit of $617m) and other (charge of $1m). The 2016 item relates to the reduction in the UK Statutory Corporation Tax rate from 18% to 17% effective from 1 April 2020. The 2015 item relates to the reduction in the UK Statutory Corporation Tax rate from 20% to 18% previously announced to be effective from 1 April 2020.

[2] Includes an amount of $126m in relation to recognition of previously unrecognised net deferred tax assets.

[3] Other items in 2017 relate to the release of tax contingencies following the expiry of the relevant statute of limitations (credit $178m) partially offset by a provision build for transfer pricing and other contingencies (charge $45m). Other items in 2016 relate to the release of tax contingencies following agreements between the Canadian tax authority and UK and Swedish tax authorities in respect of transfer pricing arrangements for the 13 year period from 2004 to 2016 (credit $453m) and release of certain tax contingencies following the expiry of the relevant statute of limitations (credit $280m) partially offset by provision build for transfer pricing contingencies (charge $195m). Other items in 2015 included the impact of internal transfers of intellectual property (tax charge $181m) and the release of certain tax contingencies following the expiry of the relevant statute of limitations (tax credit $256m).

[4] Further details explaining the adjustments in respect of prior periods is set out above on page 148.

[5] Includes an adjustment of $17m to a pre-acquisition deferred tax asset following finalisation of relevant tax returns.

AstraZeneca is domiciled in the UK but operates in other countries where the tax rates and laws are different to those in the UK. The impact on differences in effective overseas tax rates on the Group's overall tax charge is noted above. Profits arising from our manufacturing operation in Puerto Rico are granted special status and are taxed at a reduced rate compared with the normal rate of tax in that territory under a tax incentive grant continuing until 2031.

Deferred tax

The movements in the net deferred tax balance during the year are as follows:

	Intangibles, property, plant & equipment[1] $m	Pension and post-retirement benefits $m	Inter-company inventory transfers $m	Untaxed reserves[2] $m	Losses and tax credits carried forward[3] $m	Accrued expenses and other $m	Total $m
Net deferred tax balance at 1 January 2015	(2,478)	628	630	(578)	525	696	(577)
Taxation expense	355	30	156	(156)	58	(53)	390
Other comprehensive income	80	(198)	–	–	–	(9)	(127)
Additions through business combinations[4]	(1,206)	–	–	–	229	–	(977)
Exchange	(12)	(33)	(48)	42	(8)	(21)	(80)
Net deferred tax balance at 31 December 2015	(3,261)	427	738	(692)	804	613	(1,371)
Taxation expense	(132)	11	314	(53)	151	(67)	224
Other comprehensive income	83	101	–	–	–	(24)	160
Additions through business combinations[5]	(1,827)	–	–	–	50	–	(1,777)
Exchange	(1)	(74)	(38)	48	(1)	(13)	(79)
Other movements[6]	(11)	–	–	–	–	–	(11)
Net deferred tax balance at 31 December 2016	(5,149)	465	1,014	(697)	1,004	509	(2,854)
Income statement	**1,393**	**(8)**	**(231)**	**159**	**(128)**	**(166)**	**1,019**
Other comprehensive income	**(84)**	**9**	**–**	**–**	**–**	**35**	**(40)**
Exchange	**(12)**	**43**	**48**	**(62)**	**30**	**22**	**69**
Net deferred tax balance at 31 December 2017[7]	**(3,852)**	**509**	**831**	**(600)**	**906**	**400**	**(1,806)**

[1] Includes deferred tax on contingent liabilities in respect of intangibles.

[2] Untaxed reserves relate to taxable profits where the tax liability is deferred to later periods.

[3] Includes losses and tax credits carried forward which will expire within 1 to 20 years.

[4] The deferred tax liability of $977m relates to the acquisition of ZS Pharma (see Note 25).

[5] The deferred tax liability of $1,777m relates to the acquisition of Acerta Pharma (see Note 25).

[6] Arising on the deconsolidation of Entasis as detailed in Note 10.

[7] The UK had a net deferred tax asset of $743m as at 31 December 2017, mainly in respect of losses and pensions and post-retirement benefits, which has been recognised on the basis of sufficient forecast future taxable profits against which the deductible temporary differences can be utilised.

4 Taxation *continued*

The net deferred tax balance, before the offset of balances within countries, consists of:

	Intangibles, property, plant & equipment $m	Pension and post-retirement benefits $m	Inter-company inventory transfers $m	Untaxed reserves $m	Losses and tax credits carried forward $m	Accrued expenses and other $m	Total $m
Deferred tax assets at 31 December 2015	1,055	430	780	–	804	732	3,801
Deferred tax liabilities at 31 December 2015	(4,316)	(3)	(42)	(692)	–	(119)	(5,172)
Net deferred tax balance at 31 December 2015	(3,261)	427	738	(692)	804	613	(1,371)
Deferred tax assets at 31 December 2016	875	465	1,014	–	1,004	629	3,987
Deferred tax liabilities at 31 December 2016	(6,024)	–	–	(697)	–	(120)	(6,841)
Net deferred tax balance at 31 December 2016	(5,149)	465	1,014	(697)	1,004	509	(2,854)
Deferred tax assets at 31 December 2017	**1,226**	**559**	**1,011**	**–**	**957**	**885**	**4,638**
Deferred tax liabilities at 31 December 2017	**(5,078)**	**(50)**	**(180)**	**(600)**	**(51)**	**(485)**	**(6,444)**
Net deferred tax balance at 31 December 2017	**(3,852)**	**509**	**831**	**(600)**	**906**	**400**	**(1,806)**

Analysed in the statement of financial position, after offset of balances within countries, as:

	2017 $m	2016 $m	2015 $m
Deferred tax assets	**2,189**	1,102	1,294
Deferred tax liabilities	**(3,995)**	(3,956)	(2,665)
Net deferred tax balance	**(1,806)**	(2,854)	(1,371)

Unrecognised deferred tax assets

Deferred tax assets of $420m have not been recognised in respect of deductible temporary differences, which include items which will expire within 1 to 20 years (2016: $542m; 2015: $414m) because it is not probable that future taxable profit will be available against which the Group can utilise the benefits therefrom.

5 Earnings per $0.25 Ordinary Share

	2017	2016	2015
Profit for the year attributable to equity holders ($m)	**3,001**	3,499	2,825
Basic earnings per Ordinary Share	**$2.37**	$2.77	$2.23
Diluted earnings per Ordinary Share	**$2.37**	$2.76	$2.23
Weighted average number of Ordinary Shares in issue for basic earnings (millions)	**1,266**	1,265	1,264
Dilutive impact of share options outstanding (millions)	**1**	1	1
Diluted weighted average number of Ordinary Shares in issue (millions)	**1,267**	1,266	1,265

The earnings figures used in the calculations above are post-tax.

6 Segment information

AstraZeneca is engaged in a single business activity of biopharmaceuticals and the Group does not have multiple operating segments. AstraZeneca's biopharmaceuticals business consists of the discovery and development of new products, which are then manufactured, marketed and sold. All of these functional activities take place (and are managed) globally on a highly integrated basis. These individual functional areas are not managed separately.

The SET, established and chaired by the CEO, is the vehicle through which he exercises the authority delegated to him from the Board for the management, development and performance of our business. It is considered that the SET is AstraZeneca's chief operating decision making body (as defined by IFRS 8). The operation of the SET is principally driven by the management of the commercial operations, R&D, and manufacturing and supply. In addition to the CEO, CFO, the General Counsel and the Chief Compliance Officer, the SET comprises ten Executive Vice Presidents representing IMED, MedImmune, Global Medicines Development, North America, Europe, International & GPPS, Asia Pacific, Oncology, Operations & Information Technology, and Human Resources. All significant operating decisions are taken by the SET. While members of the SET have responsibility for implementation of decisions in their respective areas, operating decision making is at SET level as a whole. Where necessary, these are implemented through cross-functional sub-committees that consider the Group-wide impact of a new decision. For example, product launch decisions would be initially considered by the SET and, on approval, passed to an appropriate sub team for implementation. The impacts of being able to develop, produce, deliver and commercialise a wide range of pharmaceutical products drive the SET decision making process.

In assessing performance, the SET reviews financial information on an integrated basis for the Group as a whole, substantially in the form of, and on the same basis as, the Group's IFRS Financial Statements. The high upfront cost of discovering and developing new products coupled with the relatively insignificant and stable unit cost of production means that there is not the clear link that exists in many manufacturing businesses between the revenue generated on an individual product sale and the associated cost and hence margin generated on a product. Consequently, the profitability of individual drugs or classes of drugs is not considered a key measure of performance for the business and is not monitored by the SET.

Resources are allocated on a Group-wide basis according to need. In particular, capital expenditure, in-licensing, and R&D resources are allocated between activities on merit, based on overall therapeutic considerations and strategy under the aegis of the Group's Early Stage Product Committees and a single Late Stage Product Committee.

Geographic areas

The following tables show information by geographic area and, for Total Revenue and property, plant and equipment, material countries. The figures show the Total Revenue, operating profit and profit before tax made by companies located in that area/country, together with segment assets, segment assets acquired, net operating assets, and property, plant and equipment owned by the same companies; export sales and the related profit are included in the area/country where the legal entity resides and from which those sales were made.

	Total Revenue		
	2017 $m	2016 $m	2015 $m
UK			
External	**3,240**	1,849	2,176
Intra-Group	**5,018**	7,503	6,001
	8,258	9,352	8,177
Continental Europe			
France	**701**	899	1,015
Germany	**541**	615	608
Italy	**514**	529	544
Spain	**447**	440	426
Sweden	**842**	1,522	645
Others	**1,512**	1,575	1,624
Intra-Group	**3,862**	4,108	4,664
	8,419	9,688	9,526
The Americas			
Canada	**482**	495	530
US	**6,666**	7,828	9,949
Others	**809**	846	1,018
Intra-Group	**2,446**	3,487	2,167
	10,403	12,656	13,664
Asia, Africa & Australasia			
Australia	**377**	385	435
China	**2,955**	2,650	2,548
Japan	**2,172**	2,145	1,985
Others	**1,207**	1,224	1,205
Intra-Group	**41**	85	46
	6,752	6,489	6,219
Continuing operations	**33,832**	38,185	37,586
Intra-Group eliminations	**(11,367)**	(15,183)	(12,878)
Total Revenue	**22,465**	23,002	24,708

6 Segment information *continued*

Export sales from the UK totalled $5,917m for the year ended 31 December 2017 (2016: $8,421m; 2015: $6,851m).

	Operating (loss)/profit			(Loss)/profit before tax		
	2017 $m	2016 $m	2015 $m	2017 $m	2016 $m	2015 $m
UK	**(694)**	(526)	(743)	**(1,146)**	(950)	(1,113)
Continental Europe	**2,482**	3,695	3,412	**1,918**	3,136	3,023
The Americas	**1,242**	1,259	1,101	**822**	919	821
Asia, Africa & Australasia	**647**	474	344	**633**	447	338
Continuing operations	**3,677**	4,902	4,114	**2,227**	3,552	3,069

	Non-current assets[1]			Total assets		
	2017 $m	2016 $m	2015 $m	2017 $m	2016 $m	2015 $m
UK	**5,371**	5,127	6,251	**12,842**	12,704	14,712
Continental Europe	**16,305**	15,731	8,690	**18,962**	18,174	10,636
The Americas	**24,811**	26,044	26,431	**28,180**	28,792	31,536
Asia, Africa & Australasia	**1,024**	917	937	**3,370**	2,856	3,172
Continuing operations	**47,511**	47,819	42,309	**63,354**	62,526	60,056

	Assets acquired[2]			Net operating assets[3]		
	2017 $m	2016 $m	2015 $m	2017 $m	2016 $m	2015 $m
UK	**400**	362	1,478	**3,351**	3,306	3,713
Continental Europe	**629**	8,494	653	**10,228**	8,479	3,704
The Americas	**585**	688	4,147	**20,339**	20,969	22,334
Asia, Africa & Australasia	**138**	129	172	**1,198**	1,030	1,458
Continuing operations	**1,752**	9,673	6,450	**35,116**	33,784	31,209

[1] Non-current assets exclude deferred tax assets and derivative financial instruments.
[2] Included in Assets acquired are those assets that are expected to be used during more than one period (property, plant and equipment, goodwill and intangible assets).
[3] Net operating assets exclude short-term investments, cash, short-term borrowings, loans, derivative financial instruments, retirement benefit obligations and non-operating receivables and payables.

	Property, plant and equipment		
	2017 $m	2016 $m	2015 $m
UK	**1,455**	1,026	1,024
Sweden	**1,508**	1,142	1,023
US	**3,055**	3,233	2,986
Rest of the world	**1,597**	1,447	1,380
Continuing operations	**7,615**	6,848	6,413

Geographic markets

The table below shows Product Sales in each geographic market in which customers are located.

	2017 $m	2016 $m	2015 $m
UK	**489**	487	588
Continental Europe	**4,712**	4,987	5,180
The Americas	**7,467**	8,717	11,031
Asia, Africa & Australasia	**7,484**	7,128	6,842
Continuing operations	**20,152**	21,319	23,641

Product Sales are recognised when the significant risks and rewards of ownership have been transferred to a third party. In general this is upon delivery of the products to wholesalers. No wholesaler (2016: one; 2015: two) individually represented greater than 10% of Product Sales. The value of these transactions recorded as Product Sales were $nil (2016: $2,851m; 2015: $3,458m and $2,757m).

7 Property, plant and equipment

	Land and buildings $m	Plant and equipment $m	Assets in course of construction $m	Total property, plant and equipment $m
Cost				
At 1 January 2015	4,912	7,712	1,120	13,744
Capital expenditure	23	223	1,155	1,401
Additions through business combinations (Note 25)	21	–	–	21
Transfer of assets into use	269	359	(628)	–
Disposals and other movements	(239)	(442)	(3)	(684)
Exchange adjustments	(174)	(384)	(76)	(634)
At 31 December 2015	4,812	7,468	1,568	13,848
Capital expenditure	29	206	1,214	1,449
Transfer of assets into use	222	109	(331)	–
Disposals and other movements	(236)	(700)	(16)	(952)
Exchange adjustments	(211)	(540)	(143)	(894)
At 31 December 2016	4,616	6,543	2,292	13,451
Capital expenditure	**39**	**198**	**1,074**	**1,311**
Transfer of assets into use	**525**	**567**	**(1,092)**	**–**
Disposals and other movements	**(367)**	**(577)**	**–**	**(944)**
Exchange adjustments	**210**	**452**	**159**	**821**
At 31 December 2017	**5,023**	**7,183**	**2,433**	**14,639**
Depreciation				
At 1 January 2015	2,351	5,383	–	7,734
Charge for year	198	479	–	677
Impairment	9	19	–	28
Disposals and other movements	(203)	(411)	–	(614)
Exchange adjustments	(102)	(288)	–	(390)
At 31 December 2015	2,253	5,182	–	7,435
Charge for year	185	424	–	609
Impairment	2	–	–	2
Disposals and other movements	(222)	(656)	–	(878)
Exchange adjustments	(126)	(439)	–	(565)
At 31 December 2016	2,092	4,511	–	6,603
Charge for year	**182**	**442**	**–**	**624**
Impairment	**78**	**–**	**–**	**78**
Disposals and other movements	**(249)**	**(501)**	**–**	**(750)**
Exchange adjustments	**128**	**341**	**–**	**469**
At 31 December 2017	**2,231**	**4,793**	–	**7,024**
Net book value				
At 31 December 2015	2,559	2,286	1,568	6,413
At 31 December 2016	2,524	2,032	2,292	6,848
At 31 December 2017	**2,792**	**2,390**	**2,433**	**7,615**

Impairment charges in 2017 were recognised in relation to land and buildings in the US which were subsequently sold. These charges have been recognised in other operating income and expense.

	2017 $m	2016 $m	2015 $m
The net book value of land and buildings comprised:			
Freeholds	**2,514**	2,326	2,432
Leaseholds	**278**	198	127

Included within plant and equipment are Information Technology assets held under finance leases with a net book value of $nil (2016: $43m; 2015: $70m).

8 Goodwill

	2017 $m	2016 $m	2015 $m
Cost			
At 1 January	**11,969**	12,113	11,868
Additions through business combinations (Note 25)	**–**	19	388
Exchange and other adjustments	**174**	(163)	(143)
At 31 December	**12,143**	11,969	12,113
Amortisation and impairment losses			
At 1 January	**311**	313	318
Exchange and other adjustments	**7**	(2)	(5)
At 31 December	**318**	311	313
Net book value at 31 December	**11,825**	11,658	11,800

Goodwill is tested for impairment at the operating segment level, this being the level at which goodwill is monitored for internal management purposes. As detailed in Note 6, the Group does not have multiple operating segments and is engaged in a single business activity of biopharmaceuticals.

Recoverable amount is determined on a fair value less costs to sell basis using the market value of the Company's outstanding ordinary shares. Our market capitalisation is compared to the book value of the Group's net assets and this indicates a significant surplus at 31 December 2017 (and 31 December 2016 and 31 December 2015).

As a further check, we also perform a discounted cash flow calculation whereby we risk adjust projections of the Group's post-tax cash flows over 10 years. This length of time is considered by the Board as a reasonable period given the long development and life-cycle of a medicine. The projections include assumptions about product launches, competition from rival products and pricing policy as well as the possibility of generics entering the market. In setting these assumptions we consider our past experience, external sources of information (including information on expected increases and ageing of populations in our established markets and the expanding patient populations in newer markets), our knowledge of competitor activity and our assessment of future changes in the pharmaceutical industry. The 10-year period is covered by internal budgets and forecasts. Given that internal budgets and forecasts are prepared for all projections, no general growth rates are used to extrapolate internal budget and forecast amounts. No terminal value is included as the recoverable amount determined by the cash flows exceed the carrying value of net assets without inclusion of a terminal value.

AstraZeneca's post-tax weighted average cost of capital (7.0% for 2017, 2016 and 2015) is used in the calculation to discount the cash flows to reflect the impact of risks relevant to the Group and the time value of money.

No goodwill impairment was identified.

9 Intangible assets

	Product, marketing and distribution rights $m	Other intangibles $m	Software development costs $m	Total $m
Cost				
At 1 January 2015	31,899	2,812	2,026	36,737
Additions through business combinations (Note 25)	3,162	–	–	3,162
Additions – separately acquired	1,341	60	77	1,478
Disposals	(198)	(4)	(14)	(216)
Exchange and other adjustments	(886)	(73)	(70)	(1,029)
At 31 December 2015	35,318	2,795	2,019	40,132
Additions through business combinations (Note 25)	7,307	–	–	7,307
Additions – separately acquired	789	32	77	898
Disposals	(339)	(15)	(141)	(495)
Exchange and other adjustments	(1,472)	(232)	(127)	(1,831)
At 31 December 2016	41,603	2,580	1,828	46,011
Additions – separately acquired	**397**	**7**	**37**	**441**
Disposals	**(249)**	**(67)**	**(62)**	**(378)**
Exchange and other adjustments	**1,162**	**116**	**108**	**1,386**
At 31 December 2017	**42,913**	**2,636**	**1,911**	**47,460**
Amortisation and impairment losses				
At 1 January 2015	12,545	1,653	1,558	15,756
Amortisation for year	1,718	174	107	1,999
Impairment	143	–	5	148
Disposals	(31)	(2)	(14)	(47)
Exchange and other adjustments	(271)	(52)	(47)	(370)
At 31 December 2015	14,104	1,773	1,609	17,486
Amortisation for year	1,454	162	85	1,701
Impairment	43	1	1	45
Disposals	(25)	(15)	(124)	(164)
Exchange and other adjustments	(481)	(85)	(77)	(643)
At 31 December 2016	15,095	1,836	1,494	18,425
Amortisation for year	**1,627**	**118**	**84**	**1,829**
Impairment	**488**	**–**	**3**	**491**
Disposals	**(19)**	**–**	**(52)**	**(71)**
Exchange and other adjustments	**467**	**50**	**81**	**598**
At 31 December 2017	**17,658**	**2,004**	**1,610**	**21,272**
Net book value				
At 31 December 2015	21,214	1,022	410	22,646
At 31 December 2016	26,508	744	334	27,586
At 31 December 2017	**25,255**	**632**	**301**	**26,188**

Other intangibles consist mainly of research and device technologies.

9 Intangible assets *continued*

Amortisation charges are recognised in profit as follows:

	Product, marketing and distribution rights $m	Other intangibles $m	Software development costs $m	Total $m
Year ended 31 December 2015				
Cost of sales	369	–	–	369
Research and development expense	–	57	–	57
Selling, general and administrative costs	1,321	31	107	1,459
Other operating income and expense	28	86	–	114
Total	1,718	174	107	1,999
Year ended 31 December 2016				
Cost of sales	124	–	–	124
Research and development expense	–	48	–	48
Selling, general and administrative costs	1,327	31	85	1,443
Other operating income and expense	3	83	–	86
Total	1,454	162	85	1,701
Year ended 31 December 2017				
Cost of sales	**149**	**–**	**–**	**149**
Research and development expense	**–**	**43**	**–**	**43**
Selling, general and administrative costs	**1,478**	**30**	**84**	**1,592**
Other operating income and expense	**–**	**45**	**–**	**45**
Total	**1,627**	**118**	**84**	**1,829**

Impairment charges are recognised in profit as follows:

	Product, marketing and distribution rights $m	Other intangibles $m	Software development costs $m	Total $m
Year ended 31 December 2015				
Research and development expense	79	–	–	79
Selling, general and administrative costs	–	–	5	5
Other operating income and expense	64	–	–	64
Total	143	–	5	148
Year ended 31 December 2016				
Research and development expense	32	1	–	33
Selling, general and administrative costs	11	–	1	12
Total	43	1	1	45
Year ended 31 December 2017				
Research and development expense	**101**	**–**	**–**	**101**
Selling, general and administrative costs	**387**	**–**	**3**	**390**
Total	**488**	**–**	**3**	**491**

Impairment charges and reversals

Intangible assets under development and not available for use are tested annually for impairment and other intangible assets are tested when there is any indication of impairment. Recoverable amount is determined on a fair value less cost to sell basis using a discounted cash flow calculation (level 3 in the fair value hierarchy) where the products' expected post-tax cash flows are risk-adjusted over their estimated remaining useful economic life. The projections are covered by internal budgets and forecasts. The risk-adjusted cash flows are discounted using AstraZeneca's post-tax weighted average cost of capital (7.0% for 2017, 2016 and 2015).

The estimates used in calculating the recoverable amount are highly sensitive and depend on assumptions specific to the nature of the Group's activities including:

> outcome of R&D activities;
> probability of technical and regulatory success;
> market share and pricing;
> amount and timing of projected future cash flows; and
> sales erosion curves following patent expiry.

At 31 December 2017, the Group recorded an impairment charge of $491m in respect of launched products *Byetta* ($92m, revised carrying value of $407m), FluMist ($121m, revised carrying value of $267m) and Movantik ($174m, revised carrying value of $106m), and products in development which were fully written off, tralokinumab ($53m) and other intangible assets ($51m). The impairments recorded on the launched products were a consequence of revised market share assumptions and, for FluMist, the US market expected timing of renewed recommendation. Impairments recorded on products in development were a consequence of failed or poor performing trials.

No impairment charge has been recorded on Verinurad, a product in development, with a net book value of $1,172m. The valuation is particularly sensitive to variations in the probability of technical and regulatory success ('PTRS') assumptions. To illustrate this, sensitivities performed at the

9 Intangible assets *continued*

year end to vary to PTRS assumptions in the Group's valuation model included reducing the PTRS by 5 percentage points. Assuming all other assumptions remain constant, applying the sensitivity would result in an impairment charge of approximately $300m.

As detailed in Note 25, we have recognised significant intangible assets for late stage development programmes and launched products on business combinations at their fair value at acquisition. Further information on our significant intangible assets are disclosed below.

Significant assets

	Carrying value $m	Remaining amortisation period
Intangible assets arising from the acquisition of Acerta Pharma	7,227	15 years
Intangible assets arising from the acquisition of ZS Pharma[1]	3,162	Not amortised
RSV franchise assets arising from the acquisition of MedImmune	2,223	8 years
Intangible assets arising from the restructuring of a historical joint venture with MSD	1,473	1-13 years
Farxiga/*Forxiga* intangible assets acquired from BMS	1,428	10 years
Respiratory intangible assets acquired from Almirall and Actavis	1,304	2-21 years
Intangible assets arising from the acquisition of Ardea[1]	1,172	Not amortised
Bydureon intangible assets acquired from BMS	1,074	13 years
Onglyza intangible assets acquired from BMS	978	6 years
Other diabetes intangible assets acquired from BMS	997	5-16 years
Intangible assets arising from the acquisition of Pearl Therapeutics	932	11 years
Intangible assets arising from the acquisition of Omthera[1]	533	Not amortised
Intangible assets arising from the acquisition of Amplimmune[1]	470	Not amortised
Respiratory intangible assets acquired from Takeda	454	2-7 years
Roxadustat intangible assets acquired from FibroGen[1]	347	Not amortised
FluMist intangible assets arising from the acquisition of MedImmune	267	14 years

[1] Assets in development are not amortised but are tested annually for impairment.

All the assets listed above are classified as Product, marketing and distribution rights.

10 Investments in associates and joint ventures

	2017 $m	2016 $m	2015 $m
At 1 January	**99**	85	59
Additions	**76**	65	45
Share of after tax losses	**(55)**	(33)	(16)
Unrecognised profit on transactions with joint ventures	**(27)**	–	–
Exchange adjustments	**10**	(18)	(3)
At 31 December	**103**	99	85

On 27 November 2017, AstraZeneca entered into a joint venture agreement with Chinese Future Industry Investment Fund (FIIF), to discover, develop and commercialise potential new medicines to help meet unmet needs globally, and to bring innovative new medicines to patients in China faster. The agreement resulted in the formation of a joint venture entity based in China, Dizhe (Jiangsu) Pharmaceutical Co., Limited. AstraZeneca contributed $55m in initial funds and has a 48% interest in the joint venture. The joint venture entity purchased exclusive rights from AstraZeneca in 2017 to develop and commercialise three potential medicines currently in pre-clinical development in the areas of oncology, cardiovascular and metabolic diseases, and respiratory, resulting in a disposal gain of $28m for AstraZeneca recognised in other operating income.

In 2015, AstraZeneca established the subsidiaries Entasis Therapeutics Ltd and Entasis Therapeutics Inc. (collectively known as 'Entasis') for the development of early-stage infection assets. In March 2016, Entasis closed a Series B financing, raising $25m from four third party investors. Under the funding agreement, a new board of directors was appointed, and a voting rights agreement was put in place committing to reduce AstraZeneca's voting interest to approximately 49%. The results of Entasis were consequently deconsolidated in 2016 from the Group, with an investment in associate of $24m recognised. There was no gain or loss recognised on deconsolidation. During 2017, the voting interests were further reduced and at 31 December 2017 were approximately 18%.

On 1 December 2015, AstraZeneca entered into a joint venture agreement with Fujifilm Kyowa Kirin Biologics Co., Ltd. to develop a biosimilar using the combined capabilities of the two parties. The agreement resulted in the formation of a joint venture entity based in the UK, Centus Biotherapeutics Limited. AstraZeneca contributed $45m in cash to the joint venture entity and has a 50% interest in the joint venture. An additional contribution of $10m was made in 2016 and additional contributions totalling $20m were made in 2017.

On 30 April 2014, AstraZeneca entered into a joint venture agreement with Samsung Biologics Co., Ltd. to develop a biosimilar using the combined capabilities of the two parties. The agreement resulted in the formation of a joint venture entity based in the UK, Archigen Biotech Limited, with a branch in South Korea. AstraZeneca contributed $70m in cash to the joint venture entity and has a 50% interest in the joint venture. An additional contribution of $30m was made in 2016.

All investments are accounted for using the equity method.

10 Investments in associates and joint ventures *continued*

Aggregated summarised financial information for the associate and joint venture entities is set out below:

	2017 $m	2016 $m	2015 $m
Non-current assets	**207**	144	123
Current assets	**158**	128	75
Total liabilities	**(41)**	(20)	(11)
Net assets	**324**	252	187
Amount attributable to AstraZeneca	**117**	125	93
Exchange adjustments	**(14)**	(26)	(8)
Carrying value of investments in associate and joint ventures	**103**	99	85

11 Other investments

	2017 $m	2016 $m	2015 $m
Non-current investments			
Equity securities available for sale	**933**	727	458
Total	**933**	727	458
Current investments			
Equity securities and bonds available for sale	**1,150**	847	548
Fixed deposits	**80**	37	65
Total	**1,230**	884	613

Impairment charges of $14m in respect of available for sale securities are included in Other operating income and expense (2016: $21m; 2015: $17m).

Equity securities and bonds available for sale are held at fair value. The fair value of listed investments is based on year end quoted market prices. Fixed deposits are held at amortised cost with carrying value being a reasonable approximation of fair value given their short-term nature.

None of the financial assets have been reclassified in the year.

Fair value hierarchy

The table below analyses equity securities and bonds available for sale, contained within Other investments and carried at fair value, by valuation method. The different levels have been defined as follows:

> Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
> Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (ie as prices) or indirectly (ie derived from prices).
> Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

	2017 $m	2016 $m	2015 $m
Level 1	**1,408**	933	654
Level 2	**–**	–	–
Level 3	**675**	641	352
Total	**2,083**	1,574	1,006

Equity securities available for sale that are analysed at Level 3 include investments in private biotech companies. In the absence of specific market data, these unlisted investments are held at cost, adjusted as necessary for impairments and revaluations on new funding rounds, which approximates to fair value. Movements in Level 3 investments are detailed below:

	2017 $m	2016 $m	2015 $m
At 1 January	**641**	352	350
Additions	**53**	210	49
Revaluations	**(1)**	110	–
Transfers out	**(12)**	(12)	(22)
Disposals	**(15)**	(2)	(6)
Impairments and exchange adjustments	**9**	(17)	(19)
At 31 December	**675**	641	352

Assets are transferred in or out of Level 3 on the date of the event or change in circumstances that caused the transfer.

12 Derivative financial instruments

	Non-current assets $m	Current assets $m	Current liabilities $m	Non-current liabilities $m	Total $m
Interest rate swaps designated in a fair value hedge	49	–	–	–	49
Interest rate swaps related to instruments designated at fair value through profit and loss	77	–	–	–	77
Cross currency swaps designated in a net investment hedge	320	–	–	–	320
Other derivatives	–	2	(9)	(1)	(8)
31 December 2015	446	2	(9)	(1)	438

	Non-current assets $m	Current assets $m	Current liabilities $m	Non-current liabilities $m	Total $m
Interest rate swaps designated in a fair value hedge	–	19	–	(2)	17
Interest rate swaps related to instruments designated at fair value through profit and loss	65	–	–	–	65
Cross currency swaps designated in a net investment hedge	278	–	–	–	278
Cross currency swaps designated in a cashflow hedge	–	–	–	(115)	(115)
Other derivatives	–	8	(18)	–	(10)
31 December 2016	343	27	(18)	(117)	235

	Non-current assets $m	Current assets $m	Current liabilities $m	Non-current liabilities $m	Total $m
Interest rate swaps designated in a fair value hedge	**–**	**–**	**(3)**	**–**	**(3)**
Interest rate swaps related to instruments designated at fair value through profit and loss	**53**	**–**	**–**	**–**	**53**
Cross currency swaps designated in a net investment hedge	**223**	**12**	**–**	**(4)**	**231**
Cross currency swaps designated in a cashflow hedge	**197**	**–**	**–**	**–**	**197**
Cross currency swaps designated in a fair value hedge	**31**	**–**	**–**	**–**	**31**
Other derivatives	**–**	**16**	**(21)**	**–**	**(5)**
31 December 2017	**504**	**28**	**(24)**	**(4)**	**504**

All derivatives are held at fair value and fall within Level 2 of the fair value hierarchy as defined in Note 11. None of the derivatives have been reclassified in the year.

The fair value of interest rate swaps and cross currency swaps is estimated using appropriate zero coupon curve valuation techniques to discount future contractual cash flows based on rates at current year end.

The fair value of forward foreign exchange contracts and currency options are estimated by cash flow accounting models using appropriate yield curves based on market forward foreign exchange rates at the year end. The majority of forward foreign exchange contracts for existing transactions had maturities of less than one month from year end.

The interest rates used to discount future cash flows for fair value adjustments, where applicable, are based on market swap curves at the reporting date, and were as follows:

	2017	2016	2015
Derivatives	**1.7% to 2.2%**	1.5% to 2.2%	1.2% to 2.1%

13 Non-current other receivables

Non-current other receivables of $847m (2016: $901m; 2015: $907m) include a prepayment of $180m (2016: $380m; 2015: $617m) which represents the long-term element of minimum contractual royalties payable to Shionogi under the global licence agreement for *Crestor*, which was renegotiated in December 2013. The resulting modified royalty structure, which includes fixed minimum and maximum payments in years until 2020, has resulted in the Group recognising liabilities, and corresponding prepayments, for the discounted value of total minimum payments. The current portion of the prepayment is $181m (2016: $116m; 2015: $260m) and is reported in amounts due within one year (see Note 15).

Non-current other receivables also include $178m (2016: $178m; 2015: $158m) prepayments in relation to our research collaboration with Moderna Therapeutics and $175m (2016: $175m; 2015: $nil) receivable related to the disposal of the small molecule antibiotics assets in 2016.

14 Inventories

	2017 $m	2016 $m	2015 $m
Raw materials and consumables	**1,024**	811	960
Inventories in process	**1,208**	1,060	545
Finished goods and goods for resale	**803**	463	638
Inventories	**3,035**	2,334	2,143

The Group recognised $2,493m (2016: $2,644m; 2015: $2,942m) of inventories as an expense within cost of sales during the year.

Inventory write-offs in the year amounted to $109m (2016: $198m; 2015: $112m).

15 Current trade and other receivables

	2017 $m	2016 $m	2015 $m
Amounts due within one year			
Trade receivables	**2,818**	2,625	4,685
Less: Amounts provided for doubtful debts (Note 26)	**(16)**	(42)	(52)
	2,802	2,583	4,633
Other receivables	**793**	852	543
Prepayments and accrued income	**1,148**	879	1,268
	4,743	4,314	6,444
Amounts due after more than one year			
Other receivables	**156**	140	28
Prepayments and accrued income	**110**	119	150
	266	259	178
Trade and other receivables	**5,009**	4,573	6,622

All financial assets included within current trade and other receivables are held at amortised cost with carrying value being a reasonable approximation of fair value.

16 Cash and cash equivalents

	2017 $m	2016 $m	2015 $m
Cash at bank and in hand	**784**	782	1,250
Short-term deposits	**2,540**	4,236	4,990
Cash and cash equivalents	**3,324**	5,018	6,240
Unsecured bank overdrafts	**(152)**	(94)	(189)
Cash and cash equivalents in the cash flow statement	**3,172**	4,924	6,051

The Group holds $93m (2016: $91m; 2015: $110m) of cash and cash equivalents which is required to meet insurance solvency, capital and security requirements.

Cash and cash equivalents are held at amortised cost. Fair value approximates to carrying value.

Non-cash and other movements, within operating activities in the Consolidated Statement of Cash Flows, includes:

	2017 $m	2016 $m	2015 $m
Gains on disposal of short-term investments	**(161)**	–	–
Net gains on disposal of non-current assets	**(24)**	(29)	(85)
Changes in fair value of put option (Acerta Pharma)	**(209)**	(41)	–
Share-based payments charge for period	**220**	241	211
Settlement of share plan awards	**(254)**	(281)	(342)
Pension contributions	**(157)**	(192)	(402)
Pension charges recorded in operating profit	**74**	74	182
Foreign exchange and other	**(13)**	(264)	86
Total operating activities non-cash and other movements	**(524)**	(492)	(350)

17 Interest-bearing loans and borrowings

		Repayment dates	2017 $m	2016 $m	2015 $m
Current liabilities					
Bank overdrafts		On demand	**152**	94	189
Bank collateral			**513**	–	–
Finance leases			**5**	87	67
5.9% Callable bond	US dollars	2017	**–**	1,769	–
Floating rate notes	US dollars	2018	**399**	–	–
1.75% Callable bond	US dollars	2018	**998**	–	–
Other loans (Commercial paper)		Within one year	**180**	357	660
Total			**2,247**	2,307	916
Non-current liabilities					
Finance leases			**–**	6	28
5.9% Callable bond	US dollars	2017	**–**	–	1,796
Floating rate notes	US dollars	2018	**–**	399	399
1.75% Callable bond	US dollars	2018	**–**	998	997
1.95% Callable bond	US dollars	2019	**999**	998	997
2.375% Callable bond	US dollars	2020	**1,591**	1,589	1,586
0.875% Non-callable bond	euros	2021	**890**	782	812
0.25% Callable bond	euros	2021	**594**	522	–
Floating rate notes	US dollars	2022	**249**	–	–
2.375% Callable bond	US dollars	2022	**992**	–	–
7% Guaranteed debentures	US dollars	2023	**347**	350	355
0.75% Callable bond	euros	2024	**1,067**	937	–
3.375% Callable bond	US dollars	2025	**1,978**	1,976	1,971
3.125% Callable bond	US dollars	2027	**742**	–	–
1.25% Callable bond	euros	2028	**941**	827	–
5.75% Non-callable bond	pounds sterling	2031	**468**	426	515
6.45% Callable bond	US dollars	2037	**2,720**	2,719	2,719
4% Callable bond	US dollars	2042	**987**	986	986
4.375% Callable bond	US dollars	2045	**979**	979	976
Other loans			**16**	7	–
Total			**15,560**	14,501	14,137

All loans and borrowings above are unsecured, except for finance leases which are secured against the Information Technology assets to which they relate (see Note 7).

	Current loans and borrowings $m	Non-current loans and borrowings $m	Total $m
At 31 December 2016	2,307	14,501	16,808
Changes from financing cash flows			
Repayment of obligations under finance leases	**(14)**	**–**	**(14)**
Issue of loans	**–**	**1,988**	**1,988**
Repayment of loans	**(1,750)**	**–**	**(1,750)**
Movement in short-term borrowings	**336**	**–**	**336**
Total changes in liabilities arising on financing activities	**(1,428)**	**1,988**	**560**
Movement in overdrafts	**58**	**–**	**58**
Transfers	**1,394**	**(1,394)**	**–**
Exchange and other movements	**(84)**	**465**	**381**
At 31 December 2017	**2,247**	**15,560**	**17,807**

17 Interest-bearing loans and borrowings *continued*

Set out below is a comparison by category of carrying values and fair values of all the Group's interest-bearing loans and borrowings:

	Instruments in a fair value hedge relationship[1] $m	Instruments designated at fair value[2] $m	Instruments designated in cash flow hedge[3] $m	Amortised cost[4] $m	Total carrying value $m	Fair value $m
2015						
Overdrafts	–	–	–	189	189	189
Finance leases due within one year	–	–	–	67	67	67
Finance leases due after more than one year	–	–	–	28	28	28
Loans due within one year	–	–	–	660	660	660
Loans due after more than one year	1,398	355	–	12,356	14,109	15,132
Total at 31 December 2015	1,398	355	–	13,300	15,053	16,076
2016						
Overdrafts	–	–	–	94	94	94
Finance leases due within one year	–	–	–	87	87	87
Finance leases due after more than one year	–	–	–	6	6	6
Loans due within one year	770	–	–	1,356	2,126	2,161
Loans due after more than one year	598	350	2,286	11,261	14,495	15,826
Total at 31 December 2016	1,368	350	2,286	12,804	16,808	18,174
2017						
Overdrafts	**–**	**–**	**–**	**152**	**152**	**152**
Finance leases due within one year	**–**	**–**	**–**	**5**	**5**	**5**
Loans due within one year	**596**	**–**	**–**	**1,494**	**2,090**	**2,092**
Loans due after more than one year	**304**	**347**	**2,602**	**12,307**	**15,560**	**17,031**
Total at 31 December 2017	**900**	**347**	**2,602**	**13,958**	**17,807**	**19,280**

[1] Instruments designated as hedged items in fair value hedge relationships with respect to interest rate risk include a designated portion of the US dollar 5.9% Callable bond repaid in 2017, and a portion of the US dollar 1.75% Callable bond repayable in 2018.

[2] Instruments designated at fair value through profit or loss include the US dollar 7% guaranteed debentures repayable in 2023.

[3] Instruments designated in a cash flow hedge include the euro 0.25%, euro 0.75% and euro 1.25% Callable bonds repayable in 2021, 2024 and 2028 respectively.

[4] Included within borrowings held at amortised cost are amounts designated as hedges of net investments in foreign operations of $1,054m (2016: $1,208m; 2015: $1,327m) held at amortised cost. The fair value of these borrowings was $1,206m at 31 December 2017 (2016: $1,400m; 2015: $1,516m).

The fair value of fixed-rate publicly traded debt is based on year end quoted market prices; the fair value of floating rate debt is nominal value, as mark to market differences would be minimal given the frequency of resets. The carrying value of loans designated at fair value through profit or loss is the fair value; this falls within the Level 1 valuation method as defined in Note 11. For loans designated in a fair value hedge relationship, carrying value is initially measured at fair value and remeasured for fair value changes in respect of the hedged risk at each reporting date. All other loans are held at amortised cost. Fair values, as disclosed in the table above, are all determined using the Level 1 valuation method as defined in Note 11, with the exception of overdrafts and finance leases, where fair value approximates to carrying values.

A loss of $9m was made during the year on the fair value of bonds designated at fair value through profit or loss, due to decreased credit risk. A gain of $27m has been made on these bonds since designation due to increased credit risk. Under IFRS 9 the Group records the effect of the losses and gains, arising from own credit risk, on the fair value of bonds designated at fair value through profit or loss in Other comprehensive income. Changes in credit risk had no material effect on any other financial assets and liabilities recognised at fair value in the Group Financial Statements. The change in fair value attributable to changes in credit risk is calculated as the change in fair value not attributable to market risk. The amount payable at maturity on bonds designated at fair value through profit or loss is $282m.

The interest rates used to discount future cash flows for fair value adjustments, where applicable, are based on market swap curves at the reporting date, and were as follows:

	2017	2016	2015
Loans and borrowings	**1.9% to 2.2%**	1.5% to 2.2%	1.2% to 2.1%

18 Trade and other payables

	2017 $m	2016 $m	2015 $m
Current liabilities			
Trade payables	**3,611**	2,990	3,469
Value added and payroll taxes and social security	**243**	240	207
Rebates and chargebacks	**2,556**	2,812	3,307
Accruals	**3,551**	2,855	2,983
Contingent consideration	**555**	527	396
Other payables	**1,125**	1,062	1,301
Total	**11,641**	10,486	11,663
Non-current liabilities			
Accruals	**143**	292	256
Contingent consideration	**4,979**	4,930	6,015
Other payables	**2,718**	4,266	1,186
Total	**7,840**	9,488	7,457

Non-current other payables includes $1,823m (2016: $1,901m; 2015: $nil) arising from the put option over the non-controlling interest in Acerta Pharma (see Note 24). The put option liability is remeasured each period, based on the latest assessment of the expected redemption amount, with remeasurements taken to Selling, general and administrative costs (see Note 2). Interest arising from amortising the liability is included within Finance expense (see Note 3).

With the exception of contingent consideration payables of $5,534m (2016: $5,457m; 2015: $6,411m) which are held at fair value within Level 3 of the fair value hierarchy as defined in Note 11, all other financial liabilities are held at amortised cost with carrying value being a reasonable approximation of fair value.

Contingent consideration

	2017 $m	2016 $m	2015 $m
At 1 January	**5,457**	6,411	6,899
Settlements	**(434)**	(293)	(579)
Revaluations	**109**	(1,158)	(432)
Discount unwind (Note 3)	**402**	497	524
Foreign exchange	**–**	–	(1)
At 31 December	**5,534**	5,457	6,411

Contingent consideration arising from business combinations is fair valued using decision-tree analysis, with key inputs including the probability of success, consideration of potential delays and the expected levels of future revenues.

Revaluations of contingent consideration are recognised in Selling, general and administrative costs and include a increase of $208m in 2017 (2016: a decrease of $999m; 2015: a decrease of $378m) based on revised milestone probabilities, and revenue and royalty forecasts, relating to the acquisition of BMS's share of the Global Diabetes Alliance. Discount unwind on the liability is included within Finance expense (see Note 3).

Management has identified that reasonably possible changes in certain key assumptions, including the likelihood of achieving successful trial results, obtaining regulatory approval, the projected market share of the therapeutic area and expected pricing for launched products, may cause the calculated fair value of the above contingent consideration to vary materially in future years.

The maximum development and sales milestones payable under outstanding contingent consideration arrangements arising on business combinations are as follows:

Acquisitions	Year	Nature of contingent consideration	Maximum future milestones $m
Spirogen	2013	Milestones	216
Amplimmune	2013	Milestones	275
Omthera Pharmaceuticals	2013	Milestones	120
Pearl Therapeutics	2013	Milestones	390
BMS's share of Global Diabetes Alliance	2014	Milestones and royalties	600
Almirall	2014	Milestones and royalties	925
Definiens	2014	Milestones	150

The amount of royalties payable under the arrangements is inherently uncertain and difficult to predict, given the direct link to future sales and the range of outcomes. The maximum amount of royalties payable in each year is with reference to net sales.

19 Provisions

	Severance $m	Environmental $m	Employee benefits $m	Legal $m	Other provisions $m	Total $m
At 1 January 2015	526	84	163	74	260	1,107
Additions arising on business acquisitions	–	–	–	–	10	10
Charge for year	338	8	7	313	40	706
Cash paid	(408)	(25)	(12)	(69)	(43)	(557)
Reversals	(40)	–	–	–	(12)	(52)
Exchange and other movements	(13)	–	–	39	2	28
At 31 December 2015	403	67	158	357	257	1,242
Charge for year	578	11	6	223	170	988
Cash paid	(433)	(19)	(21)	(126)	(87)	(686)
Reversals	(40)	–	–	–	(39)	(79)
Exchange and other movements	(21)	–	–	(16)	(10)	(47)
At 31 December 2016	487	59	143	438	291	1,418
Charge for year	**225**	**11**	**30**	**281**	**55**	**602**
Cash paid	**(324)**	**(20)**	**(43)**	**(48)**	**(37)**	**(472)**
Reversals	**(75)**	**–**	**(10)**	**(40)**	**(44)**	**(169)**
Exchange and other movements	**45**	**9**	**6**	**23**	**6**	**89**
At 31 December 2017	**358**	**59**	**126**	**654**	**271**	**1,468**

	2017 $m	2016 $m	2015 $m
Due within one year	**1,121**	1,065	798
Due after more than one year	**347**	353	444
Total	**1,468**	1,418	1,242

AstraZeneca is undergoing a global restructuring initiative which involves rationalisation of the global supply chain, the sales and marketing organisation, IT and business support infrastructure, and R&D. Employee costs in connection with the initiatives are recognised in severance provisions. Final severance costs are often subject to the completion of the requisite consultations on the areas impacted.

Details of the environmental and legal provisions are provided in Note 28.

Employee benefit provisions include the Deferred Bonus Plan. Further details are included in Note 27.

Other provisions comprise amounts relating to specific contractual or constructive obligations and disputes.

No provision has been released or applied for any purpose other than that for which it was established.

20 Post-retirement benefits

Pensions

Background

The Company and most of its subsidiaries offer retirement plans which cover the majority of employees in the Group. Many of these plans are 'defined contribution' ("DC"), where the Company contribution and resulting charge is fixed at a set level or is a set percentage of employees' pay.

However, several plans, mainly in the UK, the US and Sweden, are 'defined benefit' ("DB"), where benefits are based on employees' length of service and linked to their salary. The major defined benefit plans, apart from the collectively bargained Swedish plan (which is still open to employees born before 1979), have been closed to new entrants since 2000. During 2010, following consultation with its UK employees' representatives, the Company introduced a freeze on pensionable pay at 30 June 2010 levels for defined benefit members of the UK Pension Fund. The number of active members in the Fund continues to decline and is now below 900 employees.

In November 2017, the Company decided to close both the qualified and non-qualified US pension plans to future accrual effective from 31 December 2017. The legacy DB participants are eligible for DC benefits from 1 January 2018. In addition, the eligibility criteria to qualify for benefits within the US post-retirement welfare plan was also changed effective from 1 November 2017. Further information on the financial impact of these changes is set out later in this section.

The major defined benefit plans are funded through separate, fiduciary-administered assets. The cash funding of the plans, which may from time to time involve special Company payments, is designed, in consultation with independent qualified actuaries, to ensure that the assets are sufficient to meet future obligations as and when they fall due. The funding level is monitored rigorously by the Company and local fiduciaries taking into account: the Company's credit rating, local regulation, cash flows and the solvency and maturity of the relevant pension scheme.

20 Post-retirement benefits *continued*

Financing principles

Ninety two per cent of the Company's defined benefit obligations at 31 December 2017 are in schemes within the UK, the US and Sweden. In these countries, the pension obligations are funded in line with the Company's financing principles. There have been no fundamental changes to these principles during 2017. The Company believes:

- in funding the benefits it promises to employees and meeting its obligations.
- that the pension arrangements should be considered in the context of its broader capital structure. In general, it does not believe in committing excessive capital for funding when the Company might use the capital elsewhere to reinvest in the wider business, nor does it wish to generate surpluses.
- in taking some measured and rewarded risks with the investments underlying the funding, subject to a long-term plan to reduce those risks when opportunities arise.
- that holding certain investments may cause volatility in the funding position. However, the Company would not wish to amend its contribution level for relatively small deviations from its preferred funding level, because it is expected that there will be short-term volatility, but it is prepared to react appropriately to more significant deviations.
- that proactive engagement with local Fiduciary Bodies is necessary and helpful to provide robust oversight and input in relation to funding and investment strategy and to facilitate liability management exercises appropriate to each pension plan.
- in considering the use of alternative methods of providing security that do not require immediate cash funding but help mitigate exposure of the pension arrangement to the credit risk of the Company.

These principles are appropriate at the present date but they are kept under ongoing review; should circumstances change these principles may also be subject to change.

The Company has developed a long-term funding framework to implement these principles, which targets full funding on a low risk funding measure over the long term as the pension funds mature, with affordable long-term de-risking of investment strategy over time. Unless local regulation dictates otherwise, this framework determines the cash contributions payable to the pension funds.

UK

The UK defined benefit pension fund represents approximately 64% of the Company's defined benefit obligations at 31 December 2017. The financing principles are modified in light of the UK regulatory requirements (summarised below) and resulting discussions with the Pension Fund Trustee.

Role of Trustees (UK)

The UK Pension Fund is governed and administered by a corporate Trustee which is legally separate from the Company. The Trustee Directors are comprised of representatives appointed by both the employer and employees, and include an independent professional Trustee Director. The Trustee Directors are required by law to act in the interest of all relevant beneficiaries and are responsible in particular for the asset investment policy and the day-to-day administration of the benefits. They are also responsible for jointly agreeing with the employer the level of contributions due to the UK Pension Fund (see below).

Funding requirements (UK)

UK legislation requires that pension schemes are funded prudently (ie to a level in excess of the current expected cost of providing benefits). On a triennial basis, the Trustee and the Company must agree the contributions required (if any) to ensure the Fund is fully funded over an appropriate time period and on a suitable prudent measure. The last full actuarial valuation of the AstraZeneca Pension Fund was carried out by a qualified actuary as at 31 March 2016 and following discussions between the Company and Trustee was finalised and accepted by The Pensions Regulator in 2017. The next actuarial valuation is due to take place as at 31 March 2019.

In relation to deficit recovery contributions, a lump sum contribution of £51m ($64m) was made in March 2017, with a further £51m contribution due before 31 March 2018. In addition, a further contribution of £25.2m is also due before 31 March 2018 in relation to part payment of the deferred contribution explained below.

During 2017, the Company provided a letter of credit to the Trustee, to underwrite the deferral of an additional deficit recovery contribution payment of approximately £126m which was due in 2017. This contribution will now be paid in five equal instalments from March 2018 to March 2022. The letter of credit underwriting these payments will be renewed each year, but will reduce in value as each annual payment is made.

The Company entered into a long-term funding agreement with the Trustee in October 2016 under which the Company will grant a charge in favour of the Trustee over the new Cambridge Biomedical Campus, upon practical completion, which would crystallise only in the event of the Company's insolvency. This charge will provide security in respect of future UK Pension Fund contributions.

Under the funding assumptions used to set the statutory funding target, the key assumptions from the actuarial valuation as at 31 March 2016 were as follows: long-term UK price inflation set at 2.6% per annum, salary increases at 0% per annum (as a result of pensionable pay levels being frozen in 2010), pension increases at 2.85% per annum and discount rate at 3.71% per annum. The resulting valuation of the Fund's liabilities on that basis were £5,265m ($7,091m) compared to a market value of assets at 31 March 2016 of £4,492m ($6,050m).

Under the governing documentation of the UK Pension Fund, any future surplus in the Fund would be returnable to the Company by refund assuming gradual settlement of the liabilities over the lifetime of the Fund. As such, there are no adjustments required in respect of IFRIC 14 'IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction'.

Liability Management Exercises (UK)

During 2017, the Company completed a Pensions Increase Exchange (PIE) exercise. This exercise, which commenced in 2016, offered certain pensioner members the option of taking a higher amount of pension right away, in exchange for giving up any potential future inflation linked increases on all, or part of their pension. A credit to the income statement was recognised in 2016 in respect of this exercise of £54m ($74m), in Operating Profit. No such credit was recognised in 2017.

20 Post-retirement benefits *continued*

Regulation (UK)

The UK pensions market is regulated by The Pensions Regulator whose statutory objectives and regulatory powers are described on its website, www.thepensionsregulator.gov.uk.

Rest of Group

The IAS 19 positions for the US and Sweden as at 31 December 2017 are shown below. These plans account for 28% of the Group's defined benefit obligations. The US and Sweden pension funds are governed by Fiduciary Bodies with responsibility for the investment policies of those funds. These plans are funded in line with the Company's financing principles and contributions are paid as prescribed by the long-term funding framework.

As earlier mentioned, the Company announced changes to retirement benefit plans in the US in November 2017. Both the qualified and non-qualified defined benefit pension plans closed to future accrual (ie were frozen), effective 31 December 2017, and changes in eligibility criteria were made for the post-retirement welfare plan effective 1 November 2017. These changes triggered curtailment gains totalling $92m on re-measurement of the future liabilities and which, under the rules of IAS 19, are recognised immediately in the Income statement.

> The US defined benefits programme was actuarially revalued at 31 December 2017, when plan obligations were $1,708m and plan assets were $1,603m. This includes obligations in respect of the non-qualified plan which is largely unfunded.
> The Swedish defined benefits programme was actuarially revalued at 31 December 2017, when plan obligations were estimated to amount to $1,811m and plan assets were $1,146m.

On current bases, it is expected that ongoing contributions (excluding those in respect of past service deficit contributions) during the year ending 31 December 2018 for the three main countries will be approximately $68m.

Post-retirement benefits other than pensions

In the US, and to a lesser extent in certain other countries, AstraZeneca's employment practices include the provision of healthcare and life assurance benefits for retired employees. As at 31 December 2017, some 3,338 retired employees and covered dependants currently benefit from these provisions and some 2,833 current employees will be eligible on their retirement. AstraZeneca accrues for the present value of such retiree obligations over the working life of the employee. In practice, these benefits will be funded with reference to the financing principles.

The cost of post-retirement benefits other than pensions for the Group in 2017 was $14m (2016: $17m; 2015: $23m). Plan assets were $290m and plan obligations were $279m at 31 December 2017. These benefit plans have been included in the disclosure of post-retirement benefits under IAS 19.

Financial assumptions

Qualified independent actuaries have updated the actuarial valuations under IAS 19 of the major defined benefit schemes operated by the Group to 31 December 2017. The assumptions used by the actuaries are chosen from a range of possible actuarial assumptions which, due to the long-term nature of the schemes, may not necessarily be borne out in practice. These assumptions were as follows:

	2017		2016	
	UK	Rest of Group	UK	Rest of Group
Inflation assumption	**3.1%**	**2.2%**	3.2%	2.1%
Rate of increase in salaries	**–**[1]	**3.1%**	–[1]	3.1%
Rate of increase in pensions in payment	**2.9%**	**1.1%**	3.0%	0.9%
Discount rate – defined benefit obligation	**2.5%**[2]	**3.0%**[2]	2.7%	3.3%
Discount rate – interest cost[2]	**2.5%**[3]	**2.7%**[3]	N/A	N/A
Discount rate – service cost[2]	**2.7%**[3]	**3.5%**[3]	N/A	N/A

[1] Pensionable pay frozen at 30 June 2010 levels following UK fund changes.
[2] Group defined benefit obligation as at 31 December 2017 calculated using discount rates based on market conditions as at 31 December 2017.
[3] 2017 interest costs and service costs calculated using discount rates based on market conditions as at 31 December 2016.

The weighted average duration of the post-retirement scheme obligations in the UK is 17 years and 15 years in the Rest of Group.

Discount rate and methodology changes

In 2016, the Company's discount rates were based on yields on long-term AA-rated fixed income instruments, using a single discount rate for each pension plan to value the defined benefit obligations, service cost and interest cost. As stated last year, from January 2017, for the largest plans, the Company moved to a multiple discount rate approach. This has resulted in separate discount rates for defined benefit obligations, service cost and interest cost. The change has impacted on the measurement of the service and interest cost items in 2017.

Demographic assumptions

The mortality assumptions are based on country-specific mortality tables. These are compared to actual experience and adjusted where sufficient data is available. Additional allowance for future improvements in life expectancy is included for all major schemes where there is credible data to support this continuing trend.

The table below illustrates life expectancy assumptions at age 65 for male members retiring in 2017 and male members expected to retire in 2037 (2016: 2016 and 2036 respectively).

	Life expectancy assumption for a male member retiring at age 65			
Country	2017	2037	2016	2036
UK	**23.7**	**24.8**	23.3	24.6
US	**20.8**	**23.0**	22.4	23.9
Sweden	**21.9**	**23.6**	21.8	23.6

The Company adopted the CMI 2016 Mortality Projections Model with a 1% long-term improvement rate in 2017 in the UK.

20 Post-retirement benefits *continued*

Risks associated with the Company's defined benefit pensions

The UK defined benefit plan accounts for 64% of the Group's defined benefit obligations and exposes the Company to a number of risks, the most significant of which are:

Risk	Description	Mitigation
Volatile asset returns	The Defined Benefit Obligation (DBO) is calculated using a discount rate set with reference to AA-rated corporate bond yields; asset returns that differ from the discount rate will create an element of volatility in the solvency ratio. The UK Pension Fund holds a significant proportion (around 72.5%) in growth assets. Although these growth assets are expected to outperform AA-rated corporate bonds in the long-term, they can lead to volatility and mismatching risk in the short-term. The allocation to growth assets is monitored to ensure it remains appropriate given the UK Pension Fund's long-term objectives.	In order to mitigate investment risk, the Trustee invests in a suitably diversified range of asset classes, return drivers and investment managers. The investment strategy will continue to evolve to further improve the expected risk/return profile as opportunities arise. The Trustee has hedged the vast majority (over 85%) of unintended non-sterling, overseas currency risk within the UK Pension Fund assets.
Changes in bond yields	A decrease in corporate bond yields will increase the present value placed on the DBO for accounting purposes.	The interest rate hedge of the UK Pension Fund is implemented via holding gilts and swaps of appropriate duration and set at approximately 80% of total assets and protects to some degree against falls in long-term interest rates (approximately 75% hedged at the end of 2016). There is a framework in place to gradually increase the level of interest rate hedging to 100% of assets over time, via a combination of liability management exercises and additional market-based hedging. Note that there are some differences in the bonds and instruments held by the UK Pension Fund to hedge interest rate risk on the statutory and long-term funding basis (gilts and swaps) and the bonds analysed to set the DBO discount rate on an accounting basis (AA corporate bonds). As such, there remains some mismatching risk on an accounting basis should yields on gilts and swaps diverge compared to corporate bonds (ie the 'credit spread' between gilts and corporate bonds narrows).
Inflation risk	A significant proportion of the DBO is indexed in line with price inflation (specifically inflation in the UK Retail Price Index) and higher inflation will lead to higher liabilities (although, in most cases, this is capped at an annual increase of 5%).	The UK Pension Fund holds index-linked gilts and derivative instruments such as swaps. The inflation hedge of the UK Pension Fund is set at approximately 85% of total assets and protects to some degree against higher-than-expected inflation increases on the DBO (approximately 75% hedged at the end of 2016). There is a framework in place to gradually increase the level of inflation hedging to 100% of assets over time, via a combination of liability management exercises and additional market-based hedging.
Life expectancy	The majority of the UK Pension Fund's obligations are to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the liabilities.	The UK Pension Fund entered into a longevity swap during 2013 which provides hedging against the longevity risk of increasing life expectancy over the next 76 years for around 10,000 of the UK Pension Fund's current pensioners and covers $2.4bn of the UK Pension Fund's liabilities. A one-year increase in life expectancy will result in a $244m increase in pension fund assets.

Other risks

There are a number of other risks of running the UK Pension Fund including counterparty risks from using derivatives (mitigated by using a diversified range of counterparties of high standing and ensuring positions are collateralised daily). Furthermore, there are operational risks (such as paying out the wrong benefits) and legislative risks (such as the government increasing the burden on pension funds through new legislation). These are mitigated so far as possible via the governance structure in place which oversees and administers the pension funds.

The Company's pension plans in the US and Sweden also manage these key risks, where they are relevant, in a similar manner, operating a diversified growth portfolio and a framework to hedge interest rate risk.

Post-retirement scheme deficit

The assets and obligations of the defined benefit schemes operated by the Company at 31 December 2017, as calculated in accordance with IAS 19, are shown overleaf. The fair values of the schemes' assets are not intended to be realised in the short term and may be subject to significant change before they are realised. The present value of the schemes' obligations is derived from cash flow projections over long periods and is therefore inherently uncertain.

20 Post-retirement benefits *continued*

Scheme assets

	UK		Rest of Group		Total		2016
	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Total $m
Government bonds[1]	1,590	–	79	48	1,669	48	1,717
Corporate bonds[2]	–	34	846	–	846	34	880
Derivatives[3]	–	(82)	(10)	(4)	(10)	(86)	(96)
Investment funds: Listed Equities	–	1,264	332	424	332	1,688	2,020
Investment funds: Global Macro Hedge[4]	–	1,044	–	360	–	1,404	1,404
Investment funds: Diversified growth/Multi Strategy[4]	–	1,460	–	267	–	1,727	1,727
Investment funds: Multi-asset credit[4]	–	622	–	232	–	854	854
Cash and cash equivalents	15	190	115	26	130	216	346
Other	–	–	2	262	2	262	264
Total fair value of scheme assets[5]	1,605	4,532	1,364	1,615	2,969	6,147	9,116

	UK		Rest of Group		Total		2017
	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Total $m
Government bonds[1]	**2,056**	**–**	**79**	**45**	**2,135**	**45**	**2,180**
Corporate bonds[2]	**–**	**37**	**849**	**–**	**849**	**37**	**886**
Derivatives[3]	**–**	**(237)**	**(12)**	**26**	**(12)**	**(211)**	**(223)**
Investment funds: Listed Equities	**–**	**1,174**	**371**	**421**	**371**	**1,595**	**1,966**
Investment funds: Global Macro Hedge[4]	**–**	**1,004**	**–**	**396**	**–**	**1,400**	**1,400**
Investment funds: Diversified growth/Multi Strategy[4]	**–**	**1,921**	**–**	**416**	**–**	**2,337**	**2,337**
Investment funds: Multi-asset credit[4]	**–**	**633**	**–**	**268**	**–**	**901**	**901**
Cash and cash equivalents	**40**	**121**	**23**	**23**	**63**	**144**	**207**
Other	**–**	**–**	**2**	**266**	**2**	**266**	**268**
Total fair value of scheme assets[5]	**2,096**	**4,653**	**1,312**	**1,861**	**3,408**	**6,514**	**9,922**

[1] Predominantly developed markets in nature.
[2] Predominantly developed markets in nature and investment grade (AAA-BBB).
[3] Includes interest rate swaps, inflation swaps, longevity swap and other contracts.
[4] Investment Funds are pooled, commingled vehicles, whereby the pension scheme owns units in the fund, alongside other investors. The pension schemes invest in a number of Investment Funds, including Listed Equities (primarily developed markets with some emerging markets across the world), Multi Asset Credit (bonds and debt including a range of investment grade and non-investment grade credit across the world), Diversified Growth/Multi Strategy (multi-asset exposure both across and within traditional and alternative asset classes), and Global Macro Hedge Funds (Discretionary/Fundamental Macro and managed futures).
[5] Included in scheme assets is $nil (2016: $nil) of the Company's own assets.

Scheme obligations

			2017			2016
	UK $m	Rest of Group $m	Total $m	UK $m	Rest of Group $m	Total $m
Present value of scheme obligations in respect of:						
Active membership	**(814)**	**(1,018)**	**(1,832)**	(679)	(1,590)	(2,269)
Deferred membership	**(1,998)**	**(1,688)**	**(3,686)**	(1,806)	(1,046)	(2,852)
Pensioners	**(5,220)**	**(1,767)**	**(6,987)**	(4,633)	(1,548)	(6,181)
Total value of scheme obligations	**(8,032)**	**(4,473)**	**(12,505)**	(7,118)	(4,184)	(11,302)

Net deficit in the scheme

			2017			2016
	UK $m	Rest of Group $m	Total $m	UK $m	Rest of Group $m	Total $m
Total fair value of scheme assets	**6,749**	**3,173**	**9,922**	6,137	2,979	9,116
Total value of scheme obligations	**(8,032)**	**(4,473)**	**(12,505)**	(7,118)	(4,184)	(11,302)
Deficit in the scheme as recognised in the Consolidated Statement of Financial Position	**(1,283)**	**(1,300)**	**(2,583)**	(981)	(1,205)	(2,186)

Fair value of scheme assets

			2017			2016
	UK $m	Rest of Group $m	Total $m	UK $m	Rest of Group $m	Total $m
At beginning of year	**6,137**	**2,979**	**9,116**	6,467	2,954	9,421
Interest income on scheme assets	**159**	**81**	**240**	221	104	325
Expenses	**(6)**	**(12)**	**(18)**	(5)	(9)	(14)
Actuarial gains	**45**	**188**	**233**	858	84	942
Exchange and other adjustments	**596**	**176**	**772**	(1,228)	(26)	(1,254)
Employer contributions	**123**	**34**	**157**	130	62	192
Participant contributions	**3**	**–**	**3**	4	–	4
Benefits paid	**(308)**	**(273)**	**(581)**	(310)	(190)	(500)
Scheme assets' fair value at end of year	**6,749**	**3,173**	**9,922**	6,137	2,979	9,116

20 Post-retirement benefits *continued*

The actual return on the plan assets was a gain of $473m (2016: gain of $1,267m).

Movement in post-retirement scheme obligations

	2017			2016		
	UK $m	Rest of Group $m	Total $m	UK $m	Rest of Group $m	Total $m
Present value of obligations in scheme at beginning of year	**(7,118)**	**(4,184)**	**(11,302)**	(7,451)	(3,944)	(11,395)
Current service cost	**(23)**	**(64)**	**(87)**	(20)	(82)	(102)
Past service (cost)/credit	**(39)**	**70**	**31**	27	15	42
Participant contributions	**(3)**	**–**	**(3)**	(4)	(4)	(8)
Benefits paid	**308**	**273**	**581**	310	190	500
Interest expense on post-retirement scheme obligations	**(184)**	**(105)**	**(289)**	(253)	(135)	(388)
Actuarial losses	**(272)**	**(202)**	**(474)**	(1,189)	(328)	(1,517)
Exchange and other adjustments	**(701)**	**(261)**	**(962)**	1,462	104	1,566
Present value of obligations in scheme at end of year	**(8,032)**	**(4,473)**	**(12,505)**	(7,118)	(4,184)	(11,302)

The obligations arise from the following plans:

	2017			2016		
	UK $m	Rest of Group $m	Total $m	UK $m	Rest of Group $m	Total $m
Funded – pension schemes	**(8,013)**	**(3,698)**	**(11,711)**	(7,101)	(3,309)	(10,410)
Funded – post-retirement healthcare	**–**	**(245)**	**(245)**	–	(279)	(279)
Unfunded – pension schemes	**–**	**(515)**	**(515)**	–	(583)	(583)
Unfunded – post-retirement healthcare	**(19)**	**(15)**	**(34)**	(17)	(13)	(30)
Total	**(8,032)**	**(4,473)**	**(12,505)**	(7,118)	(4,184)	(11,302)

Consolidated Statement of Comprehensive Income disclosures

The amounts that have been charged to the Consolidated Statement of Comprehensive Income, in respect of defined benefit schemes for the year ended 31 December 2017, are set out below.

	2017			2016		
	UK $m	Rest of Group $m	Total $m	UK $m	Rest of Group $m	Total $m
Operating profit						
Current service cost	**(23)**	**(64)**	**(87)**	(20)	(82)	(102)
Past service (cost)/credit	**(39)**	**70**	**31**	27	15	42
Expenses	**(6)**	**(12)**	**(18)**	(5)	(9)	(14)
Total charge to operating profit	**(68)**	**(6)**	**(74)**	2	(76)	(74)
Finance expense						
Interest income on scheme assets	**159**	**81**	**240**	221	104	325
Interest expense on post-retirement scheme obligations	**(184)**	**(105)**	**(289)**	(253)	(135)	(388)
Net interest on post-employment defined benefit plan liabilities	**(25)**	**(24)**	**(49)**	(32)	(31)	(63)
Charge before taxation	**(93)**	**(30)**	**(123)**	(30)	(107)	(137)
Other comprehensive income						
Difference between the actual return and the expected return on the post-retirement scheme assets	**45**	**188**	**233**	858	84	942
Experience gains/(losses) arising on the post-retirement scheme obligations	**(50)**	**(4)**	**(54)**	220	(6)	214
Changes in financial assumptions underlying the present value of the post-retirement scheme obligations	**(261)**	**(214)**	**(475)**	(1,409)	(377)	(1,786)
Changes in demographic assumptions	**39**	**15**	**54**	–	55	55
Remeasurement of the defined benefit liability	**(227)**	**(15)**	**(242)**	(331)	(244)	(575)

Past service credit in 2017 includes a credit to Operating Profit of $92m arising from the changes to the defined benefit and post-retirement welfare plans in the US, as referred to in the Rest of Group section on page 166. The past service credit in 2017 has been partially offset by costs predominantly related to enhanced pensions in early retirement in the UK and Sweden.

Group costs in respect of defined contribution schemes during the year were $304m (2016: $352m).

20 Post-retirement benefits *continued*

Rate sensitivities

The following table shows the US dollar effect of a change in the significant actuarial assumptions used to determine the retirement benefits obligations in our three main defined benefit pension obligation countries.

	2017		2016	
	+0.5%	–0.5%	+0.5%	–0.5%
Discount rate				
UK ($m)	**618**	**(703)**	546	(712)
US ($m)	**95**	**(101)**	107	(114)
Sweden ($m)	**147**	**(168)**	128	(149)
Total ($m)	**860**	**(972)**	781	(975)

	2017		2016	
	+0.5%	–0.5%	+0.5%	–0.5%
Inflation rate[1]				
UK ($m)	**(526)**	**495**	(510)	486
US ($m)	**–**	**–**	(12)	12
Sweden ($m)	**(165)**	**146**	(147)	127
Total ($m)	**(691)**	**641**	(669)	625

	2017		2016	
	+0.5%	–0.5%	+0.5%	–0.5%
Rate of increase in salaries				
UK ($m)	**–**	**–**	–	–
US ($m)	**–**	**–**	(9)	9
Sweden ($m)	**(51)**	**47**	(33)	30
Total ($m)	**(51)**	**47**	(42)	39

	2017		2016	
	+1 year	–1 year	+1 year	–1 year
Mortality rate				
UK ($m)	**(337)**[2]	**337**[3]	(300)	292
US ($m)	**(26)**	**27**	(27)	28
Sweden ($m)	**(63)**	**64**	(57)	57
Total ($m)	**(426)**	**428**	(384)	377

[1] Rate of increase in pensions in payment follows inflation.
[2] Of the $337m increase, $244m is covered by the longevity swap.
[3] Of the $337m decrease, $236m is covered by the longevity swap.

The sensitivity to the financial assumptions shown above has been estimated taking into account the approximate duration of the liabilities and the overall profile of the plan membership. The sensitivity to the life expectancy assumption has been estimated based on the distribution of the plan cash flows.

21 Reserves

Retained earnings

The cumulative amount of goodwill written off directly to reserves resulting from acquisitions, net of disposals, amounted to $631m (2016: $613m; 2015: $624m) using year end rates of exchange. At 31 December 2017, 476,504 shares, at a cost of $22m, have been deducted from retained earnings (2016: 276,303 shares, at a cost of $19m; 2015: 49,105 shares, at a cost of $4m).

There are no significant statutory or contractual restrictions on the distribution of current profits of subsidiaries; undistributed profits of prior years are, in the main, permanently employed in the businesses of these companies. The undistributed income of AstraZeneca companies overseas might be liable to overseas taxes and/or UK taxation (after allowing for double taxation relief) if they were to be distributed as dividends (see Note 4).

	2017 $m	2016 $m	2015 $m
Cumulative translation differences included within retained earnings			
At 1 January	**(2,028)**	(372)	490
Foreign exchange arising on consolidation	**536**	(1,050)	(528)
Exchange adjustments on goodwill (recorded against other reserves)	**18**	(11)	(15)
Foreign exchange arising on designating borrowings in net investment hedges	**505**	(591)	(333)
Fair value movement on derivatives designated in net investment hedges	**(48)**	(4)	14
Net exchange movement in retained earnings	**1,011**	(1,656)	(862)
At 31 December	**(1,017)**	(2,028)	(372)

Cumulative amounts with respect to cash flow hedges included within retained earnings are $76m (2016: $80m; 2015: $nil).

Other reserves

The other reserves arose from the cancellation of £1,255m of share premium account by the Company in 1993 and the redenomination of share capital ($157m) in 1999. The reserves are available for writing off goodwill arising on consolidation and, subject to guarantees given to preserve creditors at the date of the court order, are available for distribution.

22 Share capital of the Company

	Allotted, called-up and fully paid		
	2017 $m	2016 $m	2015 $m
Issued Ordinary Shares ($0.25 each)	**317**	316	316
Redeemable Preference Shares (£1 each – £50,000)	**–**	–	–
At 31 December	**317**	316	316

The Redeemable Preference Shares carry limited class voting rights and no dividend rights. This class of shares is capable of redemption at par at the option of the Company on the giving of seven days' written notice to the registered holder of the shares.

The Company does not have a limited amount of authorised share capital.

The movements in the number of Ordinary Shares during the year can be summarised as follows:

	No. of shares		
	2017	2016	2015
At 1 January	**1,265,229,424**	1,264,122,670	1,263,143,338
Issues of shares (share schemes)	**992,181**	1,106,754	979,332
At 31 December	**1,266,221,605**	1,265,229,424	1,264,122,670

Share repurchases

No Ordinary Shares were repurchased by the Company in 2017 (2016: nil; 2015: nil).

Shares held by subsidiaries

No shares in the Company were held by subsidiaries in any year.

23 Dividends to shareholders

	2017 Per share	2016 Per share	2015 Per share	2017 $m	2016 $m	2015 $m
Final	**$1.90**	$1.90	$1.90	**2,404**	2,402	2,400
Interim	**$0.90**	$0.90	$0.90	**1,139**	1,138	1,137
Total	**$2.80**	$2.80	$2.80	**3,543**	3,540	3,537

Reconciliation of dividend charged to equity to cash flow statement:

	2017 $m	2016 $m	2015 $m
Dividends charged to equity	**3,543**	3,540	3,537
Exchange (gains)/losses on payment of dividend	**(4)**	3	–
Hedge contracts relating to payment of dividends (cash flow statement)	**(20)**	18	(51)
Dividends paid (cash flow statement)	**3,519**	3,561	3,486

24 Non-controlling interests

Following the acquisition of a majority stake in Acerta Pharma on 2 February 2016, the Group Financial Statements at 31 December 2017 reflect equity of $1,676m (2016: $1,808m) and total comprehensive losses of $132m (2016: losses of $95m) attributable to the non-controlling interests, held by other parties, of Acerta Pharma B.V. and its subsidiaries. The following summarised financial information, for Acerta Pharma B.V. and its subsidiaries, is presented on a stand-alone basis since the acquisition date, and before the impact of Group-related adjustments, some of which are incorporated into this calculation of the loss attributable to the non-controlling interests:

	2017 $m	2016 $m
Total Revenue	**–**	–
Profit/(loss) after tax	**412**	(212)
Other comprehensive income	**–**	–
Total comprehensive income/(loss)	**412**	(212)

	2017 $m	2016 $m
Non-current assets	**3**	73
Current assets	**904**	79
Total assets	**907**	152
Current liabilities	**(417)**	(171)
Total liabilities	**(417)**	(171)
Net assets/(liabilities)	**490**	(19)

	2017 $m	2016 $m
Net cash inflow/(outflow) from operating activities	**5**	(223)
Net cash inflow from investing activities	**–**	139
Increase/(decrease) in cash and cash equivalents in the year	**5**	(84)

The non-controlling interest in Acerta Pharma is subject to a put option, exercisable by the minority shareholders at certain points in the future, not earlier than the commercial launch of *Calquence* (acalabrutinib). This put option gives rise to a liability which is recorded at the present value of the expected redemption amount, calculated using a probability-weighted model based on forecast revenue and earnings of Acerta Pharma, and is recorded within Non-current other payables (see Note 18). The forecast revenue and earnings of Acerta Pharma will particularly be affected by the outcome of ongoing clinical trials and regulatory submissions relating to *Calquence*. If actual earnings are lower than forecast, the liability for the put option will decrease. Similarly, if actual earnings are higher than forecast, the liability for the put option will increase. The value of the liability is also sensitive to the expected timing of exercise. The amount of the liability is not directly correlated to time until the expected date of exercise. During the year, *Calquence* received regulatory approval in the US for the treatment of adult patients with mantle cell lymphoma (MCL) who have received at least one prior therapy. This approval has changed the weighted probability of certain outcomes in respect of the forecast earnings of Acerta Pharma and has brought forward the weighted average expected exercise date of the put option. The changes to these assumptions resulted in a decrease in the liability for the year before the effect of interest costs.

25 Acquisitions of business operations

2017 Acquisitions

There were no acquisitions of business operations in 2017.

2016 Acquisitions

Acerta Pharma

On 2 February 2016, AstraZeneca completed an agreement to invest in a majority equity stake in Acerta Pharma, a privately-owned biopharmaceutical company based in the Netherlands and US. The transaction provides AstraZeneca with a potential best-in-class irreversible oral Bruton's tyrosine kinase (BTK) inhibitor, *Calquence*, currently in Phase III development for B-cell blood cancers and in Phase I/II clinical trials in multiple solid tumours. Acerta Pharma has approximately 150 employees.

Under the terms of the agreement, AstraZeneca has acquired 55% of the issued share capital of Acerta Pharma for an upfront payment of $2.5bn. A further payment of $1.5bn was due either on receipt of the first regulatory approval for *Calquence* for any indication in the US, or the end of 2018, depending on which was first. This was paid in 2017 on receipt of first regulatory approval in the US. The agreement also includes options which, if exercised, provide the opportunity for Acerta Pharma's shareholders to sell, and AstraZeneca to buy, the remaining 45% of shares in Acerta Pharma. The options can be exercised at various points in time, conditional on the first approval of *Calquence* in both the US and Europe and when the extent of the commercial opportunity has been fully established, at a price of approximately $3bn net of certain costs and payments incurred by AstraZeneca and net of agreed future adjusting items, using a pre-agreed pricing mechanism.

The acquiring entity within the Group was a Swedish krona functional currency subsidiary. Foreign currency risk arises from the retranslation of the US dollar denominated liabilities arising from the transaction. To manage this foreign currency risk these liabilities have been designated as the hedge instrument in a net investment hedge of the Group's underlying US dollar net investments. Exchange differences on the retranslation of the contingent consideration liability are recognised in Other comprehensive income to the extent that the hedge is effective. Any ineffectiveness is taken to profit.

AstraZeneca's 55% holding is a controlling interest and Acerta Pharma's combination of intangible product rights with an established workforce and their operating processes requires that the transaction is accounted for as a business combination in accordance with IFRS 3.

Goodwill is principally attributable to the value of the specialist know-how inherent in the acquired workforce and the accounting for deferred taxes. Goodwill is not expected to be deductible for tax purposes.

Acerta Pharma's results have been consolidated into the Group's results from 2 February 2016. From the period from acquisition to 31 December 2016, Acerta Pharma had no revenues and its loss after tax was $212m.

If the acquisition had taken effect at the beginning of the reporting period in which the acquisition occurred (1 January 2016), on a *pro forma* basis, the revenue of the combined Group for 2016 would have been unchanged and the profit after tax would have been $3,367m. This *pro forma* information does not purport to represent the results of the combined Group that actually would have occurred had the acquisition taken place on 1 January 2016 and should not be taken to be representative of future results.

The fair values assigned to the Acerta Pharma business combination completed in 2016 were:

	Fair value $m
Non-current assets	
Intangible assets (Note 9)	7,307
Current assets	253
Current liabilities	(90)
Non-current liabilities	
Deferred tax liabilities	(1,777)
Total net assets acquired	5,693
Non-controlling interests	(1,903)
Goodwill (Note 8)	19
Fair value of total consideration	3,809
Less: fair value of deferred consideration	(1,332)
Total upfront consideration	2,477
Less: cash and cash equivalents acquired	(94)
Net cash outflow	2,383

Acquisition costs were immaterial.

25 Acquisitions of business operations *continued*

2015 Acquisitions

ZS Pharma

On 17 December 2015, AstraZeneca completed the acquisition of ZS Pharma, a biopharmaceutical company based in San Mateo, California. ZS Pharma uses its proprietary ion-trap technology to develop novel treatments for hyperkalaemia, a serious condition of elevated potassium in the bloodstream, typically associated with chronic kidney disease (CKD) and chronic heart failure (CHF).

The acquisition gives AstraZeneca access to the potassium-binding compound ZS-9, a potential best-in-class treatment for hyperkalaemia.

ZS Pharma represents a strong fit with AstraZeneca's pipeline and portfolio in Cardiovascular & Metabolic Diseases, one of the Company's three main therapy areas. AstraZeneca's strategy focuses on reducing morbidity, mortality and organ damage by addressing multiple risk factors across cardiovascular disease, diabetes and chronic kidney disease. ZS-9 complements the Company's increasing focus on CKD and CHF, including the investigational medicine roxadustat, which is currently in Phase III development for patients with anaemia associated with CKD, as well as its leading Diabetes portfolio.

Under the terms of the agreement, AstraZeneca acquired 100% of the share capital of ZS Pharma for $90 per share in an all-cash transaction, or approximately $2.7bn in aggregate transaction value.

ZS Pharma has around 200 employees across three sites in California, Texas and Colorado. The combination of intangible product rights with an established workforce and their associated operating processes, principally those related to research and development and manufacturing, requires that the transaction is accounted for as a business combination in accordance with IFRS 3.

Goodwill is principally attributable to the commercial synergies AstraZeneca expects to be able to realise upon launch of ZS-9, the value of the specialist know-how inherent in the acquired workforce and the accounting for deferred taxes. Goodwill is not expected to be deductible for tax purposes.

ZS Pharma's results have been consolidated into the Group's results from 17 December 2015. From the period from acquisition to 31 December 2015, ZS Pharma's revenues and loss were immaterial.

If the acquisition had taken effect at the beginning of the reporting period in which the acquisition occurred (1 January 2015), on a *pro forma* basis, the revenue of the combined Group for 2015 would have been unchanged and the profit after tax would have been $2,702m. This *pro forma* information does not purport to represent the results of the combined Group that actually would have occurred had the acquisition taken place on 1 January 2015 and should not be taken to be representative of future results.

The final fair values assigned to the ZS Pharma business combination are detailed below:

	Fair value $m
Non-current assets	
Intangible assets (Note 9)	3,162
Property, plant and equipment (Note 7)	21
	3,183
Current assets	169
Current liabilities	(50)
Non-current liabilities	
Deferred tax liabilities	(977)
Other liabilities	(13)
	(990)
Total net assets acquired	2,312
Goodwill (Note 8)	388
Total upfront consideration	2,700
Less: cash and cash equivalents acquired	(73)
Less: upfront consideration settled in January 2016	(181)
Net cash outflow	2,446

Acquisition costs were immaterial.

26 Financial risk management objectives and policies

The Group's principal financial instruments, other than derivatives, comprise bank overdrafts, finance leases, loans, current and non-current investments, cash and short-term deposits. The main purpose of these financial instruments is to manage the Group's funding and liquidity requirements. The Group has other financial assets and liabilities such as trade receivables and trade payables, which arise directly from its operations.

The principal financial risks to which the Group is exposed are those of liquidity, interest rate, foreign currency and credit. Each of these is managed in accordance with Board-approved policies. These policies are set out below.

The Group uses foreign currency borrowings, foreign currency forwards and swaps, currency options, cross-currency swaps and interest rate swaps for the purpose of hedging its foreign currency and interest rate risks. The Group may designate certain financial instruments as fair value hedges, cash flow hedges or net investment hedges in accordance with IAS 39. Key controls applied to transactions in derivative financial instruments are: to use only instruments where good market liquidity exists, to revalue all financial instruments regularly using current market rates and to sell options only to offset previously purchased options or as part of a risk management strategy. The Group is not a net seller of options, and does not use derivative financial instruments for speculative purposes.

Capital management

The capital structure of the Group consists of shareholders' equity (Note 22), debt (Note 17) and cash (Note 16). For the foreseeable future, the Board will maintain a capital structure that supports the Group's strategic objectives through:

> managing funding and liquidity risk
> optimising shareholder return
> maintaining a strong, investment-grade credit rating.

The Group utilises factoring arrangements for selected trade receivables. These factoring arrangements qualify for full derecognition of the associated trade receivables under IAS 39.

Funding and liquidity risk are reviewed regularly by the Board and managed in accordance with policies described below.

The Board's distribution policy comprises a regular cash dividend and, subject to business needs, a share repurchase component. The Board regularly reviews its shareholders' return strategy, and in 2012 decided to suspend share repurchases in order to retain strategic flexibility.

The Group's net debt position (loans and borrowings net of cash and cash equivalents, other investments and derivative financial instruments) has increased from a net debt position of $10,657m at the beginning of the year to a net debt position of $12,679m at 31 December 2017, primarily as a result of cash outflows from investing activities, including acquisitions.

Liquidity risk

The Board reviews the Group's ongoing liquidity risks annually as part of the planning process and on an *ad hoc* basis. The Board considers short-term requirements against available sources of funding, taking into account forecast cash flows. The Group manages liquidity risk by maintaining access to a number of sources of funding which are sufficient to meet anticipated funding requirements. Specifically, the Group uses US commercial paper, committed bank facilities and cash resources to manage short-term liquidity and manages long-term liquidity by raising funds through the capital markets. The Group is assigned short-term credit ratings of P-2 by Moody's and A-2 by Standard and Poor's. The Group's long-term credit rating is A3 negative outlook by Moody's and BBB+ stable outlook by Standard and Poor's.

In addition to cash and cash equivalents of $3,324m, fixed deposits of $80m, less overdrafts of $152m at 31 December 2017, the Group has committed bank facilities of $3bn available to manage liquidity. At 31 December 2017, the Group has issued $3,959m under a Euro Medium Term Note programme and $12,980m under a SEC-registered programme. The Group regularly monitors the credit standing of the banking group and currently does not anticipate any issue with drawing on the committed facilities should this be necessary. The committed facilities of $3bn mature in April 2022 and were undrawn at 31 December 2017.

The maturity profile of the anticipated future contractual cash flows including interest in relation to the Group's financial liabilities, on an undiscounted basis and which, therefore, differs from both the carrying value and fair value, is as follows:

	Bank overdrafts and other loans $m	Bonds $m	Finance leases $m	Trade and other payables $m	Total non-derivative financial instruments $m	Interest rate swaps $m	Cross-currency swaps $m	Total derivative financial instruments $m	Total $m
Within one year	851	568	66	11,701	13,186	(54)	(17)	(71)	13,115
In one to two years	–	2,318	41	1,522	3,881	(54)	(17)	(71)	3,810
In two to three years	–	1,865	22	1,110	2,997	(19)	(26)	(45)	2,952
In three to four years	–	1,444	10	1,277	2,731	(15)	(330)	(345)	2,386
In four to five years	–	2,025	2	2,187	4,214	(15)	–	(15)	4,199
In more than five years	–	14,192	–	5,313	19,505	(44)	–	(44)	19,461
	851	22,412	141	23,110	46,514	(201)	(390)	(591)	45,923
Effect of interest	(2)	(8,194)	(46)	–	(8,242)	201	67	268	(7,974)
Effect of discounting, fair values and issue costs	–	(109)	–	(3,990)	(4,099)	(126)	3	(123)	(4,222)
31 December 2015	849	14,109	95	19,120	34,173	(126)	(320)	(446)	33,727

26 Financial risk management objectives and policies *continued*

	Bank overdrafts and other loans $m	Bonds $m	Finance leases $m	Trade and other payables $m	Total non-derivative financial instruments $m	Interest rate swaps $m	Cross-currency swaps $m	Total derivative financial instruments $m	Total $m
Within one year	455	2,374	42	10,566	13,437	(54)	32	(22)	13,415
In one to two years	–	1,921	24	4,986	6,931	(19)	12	(7)	6,924
In two to three years	–	1,500	16	1,144	2,660	(15)	(216)	(231)	2,429
In three to four years	–	2,080	10	1,666	3,756	(15)	47	32	3,788
In four to five years	7	1,756	3	877	2,643	(15)	86	71	2,714
In more than five years	–	14,796	–	3,624	18,420	(30)	320	290	18,710
	462	24,427	95	22,863	47,847	(148)	281	133	47,980
Effect of interest	(4)	(8,111)	(2)	–	(8,117)	148	(351)	(203)	(8,320)
Effect of discounting, fair values and issue costs	–	(59)	–	(2,889)	(2,948)	(82)	(93)	(175)	(3,123)
31 December 2016	458	16,257	93	19,974	36,782	(82)	(163)	(245)	36,537

	Bank overdrafts and other loans $m	Bonds $m	Finance leases $m	Trade and other payables $m	Total non-derivative financial instruments $m	Interest rate swaps $m	Cross-currency swaps $m	Total derivative financial instruments $m	Total $m
Within one year	**859**	**1,985**	**5**	**11,840**	**14,689**	**(10)**	**420**	**410**	**15,099**
In one to two years	**–**	**1,564**	**–**	**1,976**	**3,540**	**(12)**	**(100)**	**(112)**	**3,428**
In two to three years	**–**	**2,144**	**–**	**1,586**	**3,730**	**(12)**	**295**	**283**	**4,013**
In three to four years	**16**	**2,000**	**–**	**3,240**	**5,256**	**(12)**	**(747)**	**(759)**	**4,497**
In four to five years	**–**	**1,736**	**–**	**1,112**	**2,848**	**(12)**	**34**	**22**	**2,870**
In more than five years	**–**	**15,575**	**–**	**2,808**	**18,383**	**(12)**	**26**	**14**	**18,397**
	875	**25,004**	**5**	**22,562**	**48,446**	**(70)**	**(72)**	**(142)**	**48,304**
Effect of interest	**(14)**	**(7,969)**	**–**	**–**	**(7,983)**	**70**	**(480)**	**(410)**	**(8,393)**
Effect of discounting, fair values and issue costs	**–**	**(94)**	**–**	**(3,081)**	**(3,175)**	**(50)**	**93**	**43**	**(3,132)**
31 December 2017	**861**	**16,941**	**5**	**19,481**	**37,288**	**(50)**	**(459)**	**(509)**	**36,779**

Where interest payments are on a floating rate basis, it is assumed that rates will remain unchanged from the last business day of each year ended 31 December.

It is not expected that the cash flows in the maturity profile could occur significantly earlier or at significantly different amounts, with the exception of $5,534m of contingent consideration and $1,823m arising from the put option over the non-controlling interest in Acerta Pharma, both held within other payables (see Note 18).

Market risk

Interest rate risk

The Group maintains a mix of fixed and floating rate debt. The portion of fixed rate debt was approved by the Board and any variation requires Board approval.

A significant portion of the long-term debt is held at fixed rates of interest. The Group uses interest rate swaps and forward rate agreements to manage this mix. During the year the Group issued $2.0bn of bonds maturing in 2022 and 2027 to refinance the $1.75bn 5.9% 2017 bond and for general corporate purposes.

At 31 December 2017, the Group held interest rate swaps with a notional value of $0.9bn, converting the 7% guaranteed debentures payable in 2023 to floating rates and partially converting the 1.75% callable bond maturing in 2018 to floating rates. No new interest rate swaps were entered into during 2017. At 31 December 2017, swaps with a notional value of $0.6bn were designated in fair value hedge relationships and swaps with a notional value of $0.29bn related to debt designated as fair value through profit or loss. Designated hedges are expected to be effective and therefore the impact of ineffectiveness on profit is not expected to be material. The accounting treatment for fair value hedges and debt designated as fair value through profit or loss is disclosed in the Group Accounting Policies section from page 139.

The majority of surplus cash is currently invested in US dollar liquidity funds, fully collateralised repurchase arrangements and investment grade fixed securities.

26 Financial risk management objectives and policies *continued*

The interest rate profile of the Group's interest-bearing financial instruments, as at 31 December 2017, 31 December 2016 and 31 December 2015, is set out below. In the case of current and non-current financial liabilities, the classification includes the impact of interest rate swaps which convert the debt to floating rate. Current financial liabilities with short maturities are classified as floating rate given the amounts borrowed are regularly reset to market rates.

	2017			2016			2015		
	Fixed rate $m	Floating rate $m	Total $m	Fixed rate $m	Floating rate $m	Total $m	Fixed rate $m	Floating rate $m	Total $m
Financial liabilities									
Interest-bearing loans and borrowings									
Current	**404**	**1,843**	**2,247**	1,086	1,221	2,307	67	849	916
Non-current	**14,608**	**952**	**15,560**	13,154	1,347	14,501	11,986	2,151	14,137
Total	**15,012**	**2,795**	**17,807**	14,240	2,568	16,808	12,053	3,000	15,053
Financial assets									
Fixed deposits	**–**	**80**	**80**	–	37	37	–	65	65
Cash and cash equivalents	**–**	**3,324**	**3,324**	–	5,018	5,018	–	6,240	6,240
Total	**–**	**3,404**	**3,404**	–	5,055	5,055	–	6,305	6,305

In addition to the financial assets above, there are $6,366m (2016: $5,519m; 2015: $6,494m) of other current and non-current asset investments and other financial assets on which no interest is received.

Foreign currency risk

The US dollar is the Group's most significant currency. As a consequence, the Group results are presented in US dollars and exposures are managed against US dollars accordingly.

Translational

Approximately 70% of Group external sales in 2017 were denominated in currencies other than the US dollar, while a significant proportion of manufacturing, and research and development costs were denominated in pounds sterling and Swedish krona. Surplus cash generated by business units is substantially converted to, and held centrally in, US dollars. As a result, operating profit and total cash flow in US dollars will be affected by movements in exchange rates.

This currency exposure is managed centrally, based on forecast cash flows. The impact of movements in exchange rates is mitigated significantly by the correlations which exist between the major currencies to which the Group is exposed and the US dollar. Monitoring of currency exposures and correlations is undertaken on a regular basis and hedging is subject to pre-execution approval.

As at 31 December 2017, 2.8% of interest-bearing loans and borrowings were denominated in pounds sterling and 20.6% were denominated in euros. Where there is non-US dollar debt and an underlying net investment of that amount in the same currency, the Group applies net investment hedging. Exchange differences on the retranslation of debt designated as net investment hedges are recognised in other comprehensive income to the extent that the hedge is effective. Any ineffectiveness is taken to profit.

The Group holds cross-currency swaps to hedge against the impact of fluctuations in foreign exchange rates. Fair value movements on the revaluation of the cross-currency swaps are recognised in other comprehensive income to the extent that the hedge is effective, with any ineffectiveness taken to profit. In 2017, following a reduction in the value of the Group's euro net assets, €300m of our €750m 0.875% 2021 bond was de-designated from the Group's euro net investment hedge relationship. Subsequently a €300m cross-currency swap was transacted and designated as a fair value hedge of the resulting exposure to movements in the euro:US dollar exchange rate.

Foreign currency risk arises when the Group has inter-company funding and investments in certain subsidiaries operating in countries with exchange controls.

In Venezuela, the official exchange rate for essential goods and services is VEF 10/$ (the DIPRO rate) as published by CENCOEX (the National Foreign Trade Center). Alternative exchange rates include the DICOM rate, which is a second official exchange tier to cover non essentials. At 31 December 2017, the DICOM rate was approximately VEF 3,300/$.

During 2017, the Group began using the DICOM rate for the consolidation of the financial statements of the Venezuelan subsidiaries. The Group believes that this rate represents the most appropriate rate for consolidation as it reflects their best expectation of the rate at which profits will be remitted. The remaining foreign exchange risk to the Group in respect of Venezuela is now immaterial.

Transactional

One hundred percent of the Group's major transactional currency exposures on working capital balances, which typically extend for up to three months, are hedged, where practicable, using forward foreign exchange contracts against individual Group companies' reporting currency. In addition, the Group's external dividend, which is paid principally in pounds sterling and Swedish krona, is fully hedged from announcement to payment date. Foreign exchange gains and losses on forward contracts transacted for transactional hedging are taken to profit.

Sensitivity analysis

The sensitivity analysis set out overleaf summarises the sensitivity of the market value of our financial instruments to hypothetical changes in market rates and prices. The range of variables chosen for the sensitivity analysis reflects our view of changes which are reasonably possible over a one-year period. Market values are the present value of future cash flows based on market rates and prices at the valuation date. For long-term debt, an increase in interest rates results in a decline in the fair value of debt.

26 Financial risk management objectives and policies *continued*

The sensitivity analysis assumes an instantaneous 100 basis point change in interest rates in all currencies from their levels at 31 December 2017, with all other variables held constant. Based on the composition of our long-term debt portfolio as at 31 December 2017, a 1% increase in interest rates would result in an additional $28m in interest expense being incurred per year. The exchange rate sensitivity analysis assumes an instantaneous 10% change in foreign currency exchange rates from their levels at 31 December 2017, with all other variables held constant. The +10% case assumes a 10% strengthening of the US dollar against all other currencies and the -10% case assumes a 10% weakening of the US dollar.

Each incremental 10% movement in foreign currency exchange rates would have approximately the same effect as the initial 10% detailed in the table below and each 1% change in interest rates would have approximately the same effect as the 1% detailed in the table below.

	Interest rates		Exchange rates	
31 December 2015	+1%	–1%	+10%	–10%
Increase/(decrease) in fair value of financial instruments ($m)	997	(1,150)	136	(136)
Impact on profit: (loss)/gain ($m)	–	–	(91)	91
Impact on equity: gain/(loss) ($m)	–	–	227	(227)

	Interest rates		Exchange rates	
31 December 2016	+1%	–1%	+10%	–10%
Increase/(decrease) in fair value of financial instruments ($m)	1,249	(1,390)	180	(180)
Impact on profit: (loss)/gain ($m)	–	–	(24)	24
Impact on equity: gain/(loss) ($m)	–	–	204	(204)

	Interest rates		Exchange rates	
31 December 2017	+1%	–1%	+10%	–10%
Increase/(decrease) in fair value of financial instruments ($m)	**1,329**	**(1,293)**	**198**	**(198)**
Impact on profit: (loss)/gain ($m)	**–**	**–**	**(123)**	**123**
Impact on equity: gain/(loss) ($m)	**–**	**–**	**321**	**(321)**

There has been no change in the methods and assumptions used in preparing the above sensitivity analysis over the three-year period.

Credit risk

The Group is exposed to credit risk on financial assets, such as cash balances (including fixed deposits and Cash and cash equivalents), derivative instruments, Trade and other receivables. The Group is also exposed in its Net asset position to its own credit risk in respect of the 2023 debentures which are accounted for at fair value through profit or loss. Under IFRS 9, the Group records the effect of the losses and gains, arising from own credit risk, on the fair value of bonds designated at fair value through profit or loss in Other comprehensive income.

Trade and other receivables

Trade receivable exposures are managed locally in the operating units where they arise and credit limits are set as deemed appropriate for the customer. The Group is exposed to customers ranging from government-backed agencies and large private wholesalers to privately owned pharmacies, and the underlying local economic and sovereign risks vary throughout the world. Where appropriate, the Group endeavours to minimise risks by the use of trade finance instruments such as letters of credit and insurance. The Group establishes an allowance for impairment that represents its estimate of incurred losses in respect of specific Trade and other receivables where it is deemed that a receivable may not be recoverable. When the debt is deemed irrecoverable, the allowance account is written off against the underlying receivable.

In the US, sales to three wholesalers accounted for approximately 60% of US sales (2016: three wholesalers accounted for approximately 83%; 2015: three wholesalers accounted for approximately 84%).

The ageing of trade receivables at the reporting date was:

	2017 $m	2016 $m	2015 $m
Not past due	**2,488**	2,559	4,388
Past due 0–90 days	**260**	14	189
Past due 90–180 days	**31**	–	21
Past due > 180 days	**23**	10	35
	2,802	2,583	4,633

	2017 $m	2016 $m	2015 $m
Movements in provisions for trade receivables			
At 1 January	**42**	52	54
Income statement	**(26)**	–	2
Amounts utilised, exchange and other movements	**–**	(10)	(4)
At 31 December	**16**	42	52

The allowance for impairment has been calculated based on past experience and is in relation to specific customers. Given the profile of our customers, including large wholesalers and government-backed agencies, no further credit risk has been identified with the trade receivables not past due other than those balances for which an allowance has been made. The income statement credit or charge is recorded in Selling, general and administrative costs.

26 Financial risk management objectives and policies *continued*

Other financial assets

The Group may hold significant cash balances as part of its normal operations, with the amount of cash held at any point reflecting the level of cash flow generated by the business and the timing of the use of that cash. The majority of excess cash is centralised within the Group treasury entity and is subject to counterparty risk on the principal invested. This risk is mitigated through a policy of prioritising security and liquidity over return, and as such cash is only invested in high credit quality investments. Counterparty limits are set according to the assessed risk of each counterparty and exposures are monitored against these limits on a regular basis. The majority of the Group's cash is invested in US dollar AAA-rated liquidity funds, fully collateralised repurchase agreements and short-term bank deposits.

The most significant concentration of financial credit risk at 31 December 2017 was $1,149m invested in five AAA-rated liquidity funds. The liquidity fund portfolios are managed by the related external third party fund managers to maintain the AAA rating. The group does not invest in more than 10% of the total third party managed fund portfolio for each individual fund. There were no other significant concentrations of financial credit risk at the reporting date.

At 31 December 2017, the Group had investments of $1,150m (2016: $950m; 2015: $1,050m) in short-term repurchase agreements, which are fully collateralised investments. In the event of any default, ownership of the collateral would revert to the Group and would be readily convertible to cash. The value of the collateral held at 31 December 2017 was $1,151m (2016: $951m; 2015: $1,098m).

All financial derivatives are transacted with commercial banks, in line with standard market practice. The Group has agreements with some bank counterparties whereby the parties agree to post cash collateral, for the benefit of the other, equivalent to the market valuation of the derivative positions above a predetermined threshold. The carrying value of such cash collateral held by the Group at 31 December 2017 was $513m (2016: $322m; 2015: $451m) and the carrying value of each cash collateral posted by the Group at 31 December 2017 was $nil (2016: $80m; 2015: $nil).

27 Employee costs and share plans for employees

Employee costs

The average number of people, to the nearest hundred, employed by the Group is set out in the table below. In accordance with the Companies Act 2006, this includes part-time employees.

	2017	2016	2015
Employees			
UK	**6,900**	7,000	7,100
Continental Europe	**14,500**	14,700	14,800
The Americas	**16,300**	17,800	17,500
Asia, Africa & Australasia	**22,300**	22,000	20,700
Continuing operations	**60,000**	61,500	60,100

Geographical distribution described in the table above is by location of legal entity employing staff. Certain staff will spend some or all of their activity in a different location.

The number of people employed by the Group at the end of 2017 was 61,100 (2016: 59,700; 2015: 61,500).

The costs incurred during the year in respect of these employees were:

	2017 $m	2016 $m	2015 $m
Salaries	**5,004**	4,664	4,603
Social security costs	**570**	584	567
Pension costs	**378**	426	484
Other employment costs	**534**	610	474
Total	**6,486**	6,284	6,128

Severance costs of $225m are not included above (2016: $578m; 2015: $338m).

The Directors believe that, together with the basic salary system, the Group's employee incentive schemes provide competitive and market-related packages to motivate employees. They should also align the interests of employees with those of shareholders, as a whole, through long-term share ownership in the Company. The Group's current UK, Swedish and US schemes are described below; other arrangements apply elsewhere.

27 Employee costs and share plans for employees *continued*

Bonus plans

The AstraZeneca UK Performance Bonus Plan

Employees of participating AstraZeneca UK companies are invited to participate in this bonus plan, which rewards strong individual performance. Bonuses are paid in cash.

The AstraZeneca Executive Annual Bonus Scheme

This scheme is a performance bonus scheme for Directors and senior employees who do not participate in the AstraZeneca UK Performance Bonus Plan. Annual bonuses are paid in cash and reflect both corporate and individual performance measures. The Remuneration Committee has discretion to reduce or withhold bonuses if business performance falls sufficiently short of expectations in any year such as to make the payment of bonuses inappropriate.

The AstraZeneca Deferred Bonus Plan

This plan was introduced in 2006 and is used to defer a portion of the bonus earned under the AstraZeneca Executive Annual Bonus Scheme into Ordinary Shares in the Company for a period of three years. The plan currently operates only in respect of Executive Directors and members of the SET. Awards of shares under this plan are typically made in March each year, the first award having been made in February 2006.

Sweden

In Sweden, an all-employee performance bonus plan is in operation, which rewards strong individual performance. Bonuses are paid 50% into a fund investing in AstraZeneca equities and 50% in cash. The AstraZeneca Executive Annual Bonus Scheme, the AstraZeneca Performance Share Plan and the AstraZeneca Global Restricted Stock Plan all operate in respect of relevant AstraZeneca employees in Sweden.

US

In the US, there are two all-employee short-term or annual performance bonus plans in operation to differentiate and reward strong individual performance. Annual bonuses are paid in cash. There is also one senior staff long-term incentive scheme, under which 129 participants may be eligible for awards granted as AstraZeneca ADSs. AstraZeneca ADSs necessary to satisfy the awards are purchased in the market or funded via a share trust. The AstraZeneca Performance Share Plan and the AstraZeneca Global Restricted Stock Plan operate in respect of relevant employees in the US.

Share plans

The charge for share-based payments in respect of share plans is $220m (2016: $241m; 2015: $211m). The plans are equity settled.

The AstraZeneca UK All-Employee Share Plan

The Company offers UK employees the opportunity to buy Partnership Shares (Ordinary Shares). Employees may invest up to £1,800 over a 12-month accumulation period and purchase Partnership Shares in the Company with the total proceeds at the end of the period. The purchase price for the shares is the lower of the price at the beginning or the end of the 12-month period. In 2010, the Company introduced a Matching Share element, the first award of which was made in 2011. Currently one Matching Share is awarded for every four Partnership Shares purchased. Partnership Shares and Matching Shares are held in the HM Revenue & Customs (HMRC)-approved All-Employee Share Plan. At the Company's AGM in 2002, shareholders approved the issue of new shares for the purposes of the All-Employee Share Plan.

The AstraZeneca 2014 Performance Share Plan (PSP)

This plan was approved by shareholders in 2014 for a period of 10 years and replaces the AstraZeneca Performance Share Plan. Generally, awards can be granted at any time, but not during a closed period of the Company. The first grant of awards was made in May 2014. Awards granted under the plan vest after three years, or in the case of Executive Directors and members of the SET, after an additional two-year holding period, and can be subject to the achievement of performance conditions. For awards granted to all participants in 2017, vesting is subject to a combination of measures focused on scientific leadership, revenue growth and financial performance. The Remuneration Committee has responsibility for agreeing any awards under the plan and for setting the policy for the way in which the plan should be operated, including agreeing performance targets and which employees should be invited to participate. The main grant of awards in 2017 under the plan took place in March with further grants in May and August.

	Shares '000	WAFV[1] pence	WAFV[1] $
Shares awarded in March 2015	2,223	2381	35.29
Shares awarded in June 2015	36	2087	33.05
Shares awarded in August 2015	152	2123	33.21
Shares awarded in September 2015	8	n/a	32.32
Shares awarded in November 2015	7	2178	33.31
Shares awarded in March 2016	2,673	1962	28.19
Shares awarded in May 2016	24	1935	28.64
Shares awarded in August 2016	67	2536	33.58
Shares awarded in March 2017	2,359	2440	30.88
Shares awarded in May 2017	10	2607	34.20
Shares awarded in August 2017	44	2234	29.11

[1] Weighted average fair value.

27 Employee costs and share plans for employees *continued*

The AstraZeneca Investment Plan (AZIP)

This plan was introduced in 2010 and approved by shareholders at the 2010 AGM. The final grant of awards under this plan took place in March 2016. Awards granted under the plan vest after eight years and are subject to performance conditions measured over a period of between three and eight years.

	Shares '000	WAFV pence	WAFV $
Shares awarded in March 2015	64	4762	70.58
Shares awarded in August 2015	4	n/a	66.42
Shares awarded in March 2016	84	3923	56.38

The AstraZeneca Global Restricted Stock Plan

This plan was introduced in 2010. The main grant of awards in 2017 under the plan was in March, with further, smaller grants in May, August and November. This plan provides for the grant of restricted stock unit (RSU) awards to selected below SET-level employees and is used in conjunction with the AstraZeneca Performance Share Plan to provide a mix of RSUs and performance shares. Awards typically vest on the third anniversary of the date of grant and are contingent on continued employment with the Company. The Remuneration Committee has responsibility for agreeing any awards under the plan and for setting the policy for the way in which the plan should be operated.

	Shares '000	WAFV pence	WAFV $
Shares awarded in March 2015	1,966	4762	70.58
Shares awarded in August 2015	17	4245	66.42
Shares awarded in March 2016	2,695	3923	56.38
Shares awarded in August 2016	122	5071	67.16
Shares awarded in March 2017	2,502	4880	61.76
Shares awarded in May 2017	78	5214	68.40
Shares awarded in August 2017	31	4468	58.22
Shares awarded in November 2017	77	4942	66.24

The AstraZeneca Restricted Share Plan

This plan was introduced in 2008 and provides for the grant of restricted share awards to key employees, excluding Executive Directors. Awards are made on an *ad hoc* basis with variable vesting dates. The plan has been used six times in 2017 to make awards to 74 employees. The Remuneration Committee has responsibility for agreeing any awards under the plan and for setting the policy for the way in which the plan should be operated.

	Shares '000	WAFV pence	WAFV $
Shares awarded in March 2015	164	4762	70.58
Shares awarded in June 2015	69	4174	66.09
Shares awarded in August 2015	31	4245	66.42
Shares awarded in September 2015	41	4199	64.64
Shares awarded in November 2015	41	4355	66.62
Shares awarded in March 2016	809	3923	56.38
Shares awarded in May 2016	335	3869	57.28
Shares awarded in August 2016	37	5071	67.16
Shares awarded in November 2016	14	4233	53.42
Shares awarded in February 2017	205	4293	55.50
Shares awarded in March 2017	134	4880	61.76
Shares awarded in May 2017	8	5214	68.40
Shares awarded in August 2017	26	4468	58.22
Shares awarded in September 2017	31	4765	65.60
Shares awarded in November 2017	23	4942	66.24

The fair values were determined using a modified version of the binomial model. This method incorporated expected dividends but no other features into the measurements of fair value. The grant date fair values of share awards disclosed in this section do not take account of service and non-market related performance conditions.

28 Commitments and contingent liabilities

Commitments	2017 $m	2016 $m	2015 $m
Contracts placed for future capital expenditure on property, plant and equipment and software development costs not provided for in these accounts	**570**	629	518

Guarantees and contingencies arising in the ordinary course of business, for which no security has been given, are not expected to result in any material financial loss.

Research and development collaboration payments

The Group has various ongoing collaborations, including in-licensing and similar arrangements with development partners. Such collaborations may require the Group to make payments on achievement of stages of development, launch or revenue milestones, although the Group generally has the right to terminate these agreements at no cost. The Group recognises research and development milestones as intangible assets once it is committed to payment, which is generally when the Group reaches set trigger points in the development cycle. Revenue-related milestones are recognised as intangible assets on product launch at a value based on the Group's long-term revenue forecasts for the related product. The table below indicates potential development and revenue-related payments that the Group may be required to make under such collaborations.

	Total $m	Under 1 year $m	Years 1 and 2 $m	Years 3 and 4 $m	Years 5 and greater $m
Future potential research and development milestone payments	**5,838**	**580**	**1,254**	**723**	**3,281**
Future potential revenue milestone payments	**5,064**	**436**	**1,216**	**276**	**3,136**

The table includes all potential payments for achievement of milestones under ongoing research and development arrangements. Revenue-related milestone payments represent the maximum possible amount payable on achievement of specified levels of revenue as set out in individual contract agreements, but exclude variable payments that are based on unit sales (eg royalty-type payments) which are expensed as the associated sale is recognised. The table excludes any payments already capitalised in the Financial Statements for the year ended 31 December 2017.

The future payments we disclose represent contracted payments and, as such, are not discounted and are not risk adjusted. As detailed in the Risk section from page 210, the development of any pharmaceutical product candidate is a complex and risky process that may fail at any stage in the development process due to a number of factors (including items such as failure to obtain regulatory approval, unfavourable data from key studies, adverse reactions to the product candidate or indications of other safety concerns). The timing of the payments is based on the Group's current best estimate of achievement of the relevant milestone.

Environmental costs and liabilities

The Group's expenditure on environmental protection, including both capital and revenue items, relates to costs that are necessary for implementing internal systems and programmes, and meeting legal and regulatory requirements for processes and products. This includes investment to conserve natural resources and otherwise minimise the impact of our activities on the environment.

They are an integral part of normal ongoing expenditure for carrying out the Group's research, manufacturing and commercial operations and are not separated from overall operating and development costs. There are no known changes in legal, regulatory or other requirements resulting in material changes to the levels of expenditure for 2015, 2016 or 2017.

In addition to expenditure for meeting current and foreseen environmental protection requirements, the Group incurs costs in investigating and cleaning up land and groundwater contamination. In particular, AstraZeneca has environmental liabilities at some currently or formerly owned, leased and third party sites.

In the US, Zeneca Inc., and/or its indemnitees, have been named as potentially responsible parties (PRPs) or defendants at approximately 13 sites where Zeneca Inc. is likely to incur future environmental investigation, remediation, operation and maintenance costs under federal, state, statutory or common law environmental liability allocation schemes (together, US Environmental Consequences). Similarly, Stauffer Management Company LLC (SMC), which was established in 1987 to own and manage certain assets of Stauffer Chemical Company acquired that year, and/or its indemnitees, have been named as PRPs or defendants at 35 sites where SMC is likely to incur US Environmental Consequences.

AstraZeneca has also given indemnities to third parties for a number of sites outside the US. These environmental liabilities arise from legacy operations that are not currently part of the Group's business and, at most of these sites, remediation, where required, is either completed or nearing completion. AstraZeneca has made provisions for the estimated costs of future environmental investigation, remediation, operation and maintenance activity beyond normal ongoing expenditure for maintaining the Group's R&D and manufacturing capacity and product ranges, where a present obligation exists, it is probable that such costs will be incurred and they can be estimated reliably. With respect to such estimated future costs, there were provisions at 31 December 2017 in the aggregate of $59m (2016: $59m; 2015: $67m), mainly relating to the US. Where we are jointly liable or otherwise have cost-sharing agreements with third parties, we reflect only our share of the obligation. Where the liability is insured in part or in whole by insurance or other arrangements for reimbursement, an asset is recognised to the extent that this recovery is virtually certain.

It is possible that AstraZeneca could incur future environmental costs beyond the extent of our current provisions. The extent of such possible additional costs is inherently difficult to estimate due to a number of factors, including: (1) the nature and extent of claims that may be asserted in the future; (2) whether AstraZeneca has or will have any legal obligation with respect to asserted or unasserted claims; (3) the type of remedial action, if any, that may be selected at sites where the remedy is presently not known; (4) the potential for recoveries from or allocation of liability to third parties; and (5) the length of time that the environmental investigation, remediation and liability allocation process can take. Notwithstanding and subject to the foregoing, we estimate the potential additional loss for future environmental investigation, remediation, remedial operation and maintenance activity above and beyond our provisions to be, in aggregate, between $87m and $144m (2016: $85m and $141m; 2015: $71m and $119m), which relates mainly to the US.

28 Commitments and contingent liabilities *continued*

Legal proceedings

AstraZeneca is involved in various legal proceedings considered typical to its business, including actual or threatened litigation and/or actual or potential government investigations relating to employment matters, product liability, commercial disputes, pricing, sales and marketing practices, infringement of IP rights, and the validity of certain patents and competition laws. The more significant matters are discussed below.

Most of the claims involve highly complex issues. Often these issues are subject to substantial uncertainties and, therefore, the probability of a loss, if any, being sustained and an estimate of the amount of any loss is difficult to ascertain. Consequently, for a majority of these claims, it is not possible to make a reasonable estimate of the expected financial effect, if any, that will result from ultimate resolution of the proceedings. In these cases, AstraZeneca discloses information with respect to the nature and facts of the cases.

With respect to each of the legal proceedings described below, other than those for which provision has been made, we are unable to make estimates of the possible loss or range of possible losses at this stage, other than as set forth in this section. We also do not believe that disclosure of the amount sought by plaintiffs, if known, would be meaningful with respect to those legal proceedings. This is due to a number of factors, including: (1) the stage of the proceedings (in many cases trial dates have not been set) and the overall length and extent of pre-trial discovery; (2) the entitlement of the parties to an action to appeal a decision; (3) clarity as to theories of liability, damages and governing law; (4) uncertainties in timing of litigation; and (5) the possible need for further legal proceedings to establish the appropriate amount of damages, if any.

While there can be no assurance regarding the outcome of any of the legal proceedings referred to in this Note 28, based on management's current and considered view of each situation, we do not currently expect them to have a material adverse effect on our financial position. This position could of course change over time, not least because of the factors referred to above.

In cases that have been settled or adjudicated, or where quantifiable fines and penalties have been assessed and which are not subject to appeal (or other similar forms of relief), or where a loss is probable and we are able to make a reasonable estimate of the loss, we generally indicate the loss absorbed or make a provision for our best estimate of the expected loss.

Where it is considered that the Group is more likely than not to prevail, legal costs involved in defending the claim are charged to profit as they are incurred.

Where it is considered that the Group has a valid contract which provides the right to reimbursement (from insurance or otherwise) of legal costs and/or all or part of any loss incurred or for which a provision has been established, and we consider recovery to be virtually certain, the best estimate of the amount expected to be received is recognised as an asset.

Assessments as to whether or not to recognise provisions or assets, and of the amounts concerned, usually involve a series of complex judgements about future events and can rely heavily on estimates and assumptions. AstraZeneca believes that the provisions recorded are adequate based on currently available information and that the insurance recoveries recorded will be received. However, given the inherent uncertainties involved in assessing the outcomes of these cases, and in estimating the amount of the potential losses and the associated insurance recoveries, we could in the future incur judgments or insurance settlements that could have a material adverse effect on our results in any particular period.

IP claims include challenges to the Group's patents on various products or processes and assertions of non-infringement of patents. A loss in any of these cases could result in loss of patent protection on the related product. The consequences of any such loss could be a significant decrease in product sales, which could have a material adverse effect on our results. The lawsuits filed by AstraZeneca for patent infringement against companies that have filed ANDAs in the US, seeking to market generic forms of products sold by the Group prior to the expiry of the applicable patents covering these products, typically also involve allegations of non-infringement, invalidity and unenforceability of these patents by the ANDA filers. In the event that the Group is unsuccessful in these actions or the statutory 30-month stay expires before a ruling is obtained, the ANDA filers involved will also have the ability, subject to FDA approval, to introduce generic versions of the product concerned.

AstraZeneca has full confidence in, and will vigorously defend and enforce, its IP.

Over the course of the past several years, including in 2017, a significant number of commercial litigation claims in which AstraZeneca is involved have been resolved, particularly in the US, thereby reducing potential contingent liability exposure arising from such litigation. Similarly, in part due to patent litigation and settlement developments, greater certainty has been achieved regarding possible generic entry dates with respect to some of our patented products. At the same time, like other companies in the pharmaceutical sector and other industries, AstraZeneca continues to be subject to government investigations around the world.

Patent litigation

Brilinta (ticagrelor)

US patent proceedings

In 2015, in response to Paragraph IV notices from multiple ANDA filers, AstraZeneca filed patent infringement lawsuits in the US District Court for the District of Delaware (the District Court) relating to patents listed in the FDA Orange Book with reference to *Brilinta*. AstraZeneca continues to litigate in the District Court against the ANDA filers. Trials are scheduled for March and April 2018.

Patent proceedings outside the US

In Canada, in June 2017, Teva Canada Limited challenged the patents listed on the Canadian Patent Register with reference to *Brilinta*. In September 2017, Apotex Inc. did the same. AstraZeneca has responded to the challenges and hearings are scheduled for April and May 2019.

In China, in October 2017, the Chinese Patent Office issued a decision invalidating one of AstraZeneca's Chinese substance patents relating to *Brilinta*. The patent, Chinese Patent No. ZL99815926.3, is due to expire in December 2019. AstraZeneca has appealed.

Byetta (exenatide)

US patent proceedings

In December 2015, AstraZeneca filed a patent infringement lawsuit in response to a Paragraph IV notice from Amneal Pharmaceuticals LLC (Amneal) relating to patents listed in the FDA Orange Book with reference to *Byetta*. In October 2017, AstraZeneca settled the patent litigation against Amneal. A consent judgment has been entered in the US District Court for the District of Delaware which will enjoin Amneal from launching its proposed exenatide ANDA product until April 2018, subject to regulatory approval.

28 Commitments and contingent liabilities *continued*

Calquence (acalabrutinib)

US patent proceedings

In November 2017, Pharmacyclics LLC filed a complaint in the US District Court for the District of Delaware against Acerta Pharma B.V., Acerta Pharma LLC, and AstraZeneca (collectively, AstraZeneca) alleging that Calquence infringes certain claims of US Patent Nos. 9,079,908; 9,139,591; and 9,556,182. AstraZeneca filed an answer to the complaint in January 2018 alleging, *inter alia*, that the asserted patents are invalid and not infringed.

Crestor (rosuvastatin calcium)

Patent proceedings outside the US

In Australia, as previously disclosed, a provision was taken in respect of damages claims from generic entities and the Commonwealth of Australia in relation to alleged losses suffered in connection with AstraZeneca's enforcement of *Crestor* patents which were subsequently found invalid. During 2016 and 2017, AstraZeneca settled several of these claims; however, the claims from Apotex Inc (and other related Apotex entities) and the Commonwealth of Australia remain outstanding.

In France, patent infringement proceedings continue against Biogaran S.A.S. in relation to the supplementary protection certificate related to the *Crestor* substance patent (European Patent No. EP 0,521,471).

In Japan, patent invalidity proceedings continue against Nippon Chemiphar Co. Ltd (Nippon) in relation to the *Crestor* substance patent (Japanese Patent No. JP 2648897), which expired in Japan in May 2017. The patent was found valid by the Japanese Patent Office in 2016 but this decision was appealed to the High Court.

In the Netherlands, in 2015, the District Court of the Hague determined that Resolution Chemicals Ltd.'s (Resolution) rosuvastatin zinc product does not infringe the supplementary protection certification (SPC) related to the *Crestor* substance patent (European Patent No. EP 0,521,471). In February 2016, the Court of Appeal of the Hague overturned the decision and found that Resolution's product does infringe the SPC. Resolution appealed to the Supreme Court. A decision is pending.

In Spain, in March 2017, AstraZeneca received an interim injunction from the Commercial Court of Barcelona (the Commercial Court) against the launch of ratiopharm Espana, S.A.'s rosuvastatin zinc product. In March 2017, AstraZeneca also initiated main infringement proceedings before the same court. In July 2017, the Commercial Court lifted the interim injunction. Proceedings are ongoing.

In Switzerland, in May 2016, Mepha Pharma AG challenged the validity of the supplementary protection certificate related to the *Crestor* substance patent (European Patent No. EP 0,521,471). The patent was maintained through to expiry in 2017.

In the UK, in October 2015, Resolution Chemicals Ltd. commenced an action in the UK Patent Court alleging partial invalidity and non-infringement of the supplementary protection certificate related to the *Crestor* substance patent (European Patent No. EP 0,521,471). In 2017, the case was stayed by agreement between the parties and the patent was maintained through to expiry in 2017.

Daliresp (roflumilast)

US patent proceedings

In 2015, in response to Paragraph IV notices from ANDA filers, AstraZeneca filed patent infringement lawsuits in the US District Court for the District of New Jersey (the District Court) relating to patents listed in the FDA Orange Book with reference to *Daliresp*. In 2017, AstraZeneca entered into several separate settlements and the District Court entered consent judgments to dismiss several of the litigations. AstraZeneca continues to litigate in the District Court against additional ANDA filers. Trial is scheduled for April 2018.

Faslodex (fulvestrant)

US patent proceedings

AstraZeneca has filed patent infringement lawsuits in the US District Court for the District of New Jersey (the District Court) relating to four patents listed in the FDA Orange Book with reference to *Faslodex* after receiving a number of Paragraph IV notices relating to multiple ANDAs seeking FDA approval to market generic versions of *Faslodex*, prior to the expiration of AstraZeneca's patents. In July 2016, AstraZeneca settled one of these, the lawsuit brought against Sandoz, Inc (Sandoz), and the District Court entered a consent judgment, which included an injunction preventing Sandoz from launching a generic fulvestrant product until March 2019, or earlier in certain circumstances. In 2016 and 2017, AstraZeneca resolved the lawsuits against seven additional ANDA filers, and the District Court also entered consent judgments ending those lawsuits. AstraZeneca continues to litigate in the District Court against one ANDA filer.

In February 2017, AstraZeneca was served with three petitions for *inter partes* review by the Patent Trial and Appeal Board (PTAB) of the US Patent and Trademark Office relating to patents listed in the FDA Orange Book with reference to *Faslodex*. In September 2017, the PTAB denied institution of all three petitions, and no appeals were taken.

In March and October 2017, AstraZeneca received Paragraph IV notices regarding NDAs submitted pursuant to 21 U.S.C. § 355(b)(2) by Teva Pharmaceuticals USA, Inc. (Teva) and Fresenius Kabi USA LLC (Fresenius), respectively, relating to the same FDA Orange Book-listed patents. In April 2017, AstraZeneca filed a lawsuit against Teva in the US District Court for the District of New Jersey (the District Court). In December 2017, AstraZeneca filed lawsuits against Fresenius in both the District Court and the US District Court for the District of Delaware. In January 2018, AstraZeneca settled the lawsuits against both Teva and Fresenius and consent judgments have been entered, ending the lawsuits.

Patent proceedings outside the US

In Brazil, in February 2013, Eurofarma Laboratorios S.A. (Eurofarma) filed a nullity action against a formulation patent for *Faslodex*. In October 2015, the 31st Specialized Intellectual Property (IP) Federal Court of Rio de Janeiro invalidated AstraZeneca's patent. In July 2017, the 1st Specialized IP Panel of the Rio Federal Court of Appeals rejected AstraZeneca's appeal against this decision. AstraZeneca did not appeal further.

In China, in March 2014, AstraZeneca received a request for invalidation of the *Faslodex* formulation patent CN01803546.9 filed by Jiangsu Hansoh Pharmaceutical Co. Ltd. at the Chinese Patent Office. In September 2014, the Patent Re-examination Board of the Chinese Patent Office declared the patent invalid. AstraZeneca appealed to the Beijing IP Court and the appeal was rejected in April 2016. AstraZeneca appealed this decision to the Beijing Higher People's Court and the appeal was rejected in December 2016. AstraZeneca did not appeal further.

28 Commitments and contingent liabilities *continued*

In Europe, in May 2017, at an oral hearing, the Opposition Division of the European Patent Office revoked a *Faslodex* divisional patent (European Patent No. EP 2,266,573) for lack of inventive step. Oppositions against the grant of the patent had been filed by five opponents. AstraZeneca appealed in July 2017.

In Germany, in July 2015, AstraZeneca was served with complaints filed by Hexal AG (Hexal) and ratiopharm GmbH (ratiopharm) requesting the revocation of the German part of European Patent No. EP 1,250,138 (the '138 patent). In January 2017, the German Federal Patent Court declared the '138 patent invalid. AstraZeneca's appeal is pending. In January 2017, the Regional Court of Düsseldorf lifted a provisional injunction based on the '138 patent which had been in place against Hexal since February 2016. In January 2017, the Higher Regional Court of Düsseldorf suspended the effects of a provisional injunction based on the '138 patent which had been in place against ratiopharm since September 2016.

In Spain, in January 2016 and July 2017, the Barcelona Commercial Court ordered preliminary injunctions based on the Spanish part of European Patent Nos. EP 1,250,138 and EP 2,266,573, respectively preventing Sandoz Farmacéutica, S.A. (Sandoz) and Teva Pharm S.L.U. (Teva) from launching generic *Faslodex* in Spain. Sandoz appealed and, in December 2017, the Barcelona Court of Appeals revoked and lifted the preliminary injunction against Sandoz.

Imfinzi (durvalumab)

US patent proceedings

In July 2017, Bristol-Myers Squibb, E.R. Squibb & Sons L.L.C., Ono Pharmaceutical Co. and Tasuku Honjo filed a patent infringement action in the US District Court for the District of Delaware relating to AstraZeneca's commercialisation of *Imfinzi* in the US. AstraZeneca filed an answer to the complaint in October 2017 alleging, *inter alia*, that the asserted patent is invalid and not infringed. The litigation is ongoing.

Losec/*Prilosec* (omeprazole)

Patent proceedings outside the US

In Canada, in 2004, AstraZeneca brought proceedings against Apotex Inc. (Apotex) for infringement of several patents related to Losec. In February 2015, the Federal Court of Canada (the Federal Court) found that Apotex had infringed the Losec formulation patent (Canadian Patent No. 1,292,693). This finding was upheld on appeal. In July 2017, after a reference to account for Apotex's profits earned as a result of the infringement, the Federal Court issued its decision describing how the quantification of monies owed to AstraZeneca should proceed. Apotex has appealed.

Nexium (esomeprazole magnesium)

US patent proceedings

In 2017, AstraZeneca settled several separate patent litigations against ANDA filers relating to patents listed in the FDA Orange Book with reference to *Nexium*, *Nexium* oral suspension and *Nexium* 24HR (OTC). The US District Court for the District of New Jersey entered consent judgments and each of the separate patent litigations was dismissed.

Patent proceedings outside the US

In Canada, in July 2014, the Federal Court of Canada found the *Nexium* substance patent (Canadian Patent No. 2,139,653 (the '653 patent)) invalid and not infringed by Apotex Inc. In July 2015, AstraZeneca's appeal was dismissed. AstraZeneca was granted leave to appeal to the Supreme Court of Canada (the Supreme Court) and a hearing was held in November 2016. In June 2017, the Supreme Court granted AstraZeneca's appeal and found the '653 patent valid. AstraZeneca is taking steps to collect infringement damages.

Onglyza (saxagliptin) and *Kombiglyze* (saxagliptin and metformin)

US patent proceedings

AstraZeneca initiated patent infringement proceedings against various generic entities in the US District Court for the District of Delaware (the District Court) after those entities had submitted ANDAs containing a Paragraph IV Certification alleging that US Patent No. RE44,186 (the '186 patent), listed in the FDA Orange Book with reference to *Onglyza* and *Kombiglyze XR*, is invalid and/or will not be infringed by the products as described in their ANDAs. In February 2017, the District Court issued a decision upholding the validity of the '186 patent. Mylan Pharmaceuticals Inc. (Mylan), one of the generic defendants, appealed the District Court's decision to the US Court of Appeals for the Federal Circuit (the Court of Appeals). In June 2016, the Court of Appeals denied Mylan's petition for rehearing *en banc* of the decision affirming the denial of Mylan's motion to dismiss for lack of jurisdiction. In September 2016, Mylan filed a petition for *writ of certiorari* with the US Supreme Court seeking an appeal of the Court of Appeals' decision and, in January 2017, that petition was denied. In May 2016, the US Patent and Trademark Office (USPTO) instituted an *inter partes* review brought by Mylan challenging the validity of the '186 patent (the Mylan IPR). Subsequently, additional generic entities also filed petitions for *inter partes* review challenging the validity of the '186 patent and joined the Mylan IPR. In August 2017, the USPTO decided in AstraZeneca's favour and upheld the challenged claims of the '186 patent. Mylan has appealed the USPTO's decision to the Court of Appeals.

Pulmicort Respules (budesonide inhalation suspension)

US patent proceedings

In February 2015, the US District Court for the District of New Jersey (the District Court) determined that the asserted claims of US Patent No. 7,524,834, which covered *Pulmicort Respules*, were invalid following challenges brought by Apotex Inc. and Apotex Corp., Breath Limited, Sandoz, Inc. and Watson Laboratories, Inc. (together, the Generic Challengers). In May 2015, the US Court of Appeals for the Federal Circuit affirmed the District Court's decision. Since 2009, various injunctions were issued in this matter. Damages claims based on those injunctions have been filed by the Generic Challengers and a provision has been taken.

Synagis (palivizumab)

US patent proceedings

In March 2017, MedImmune LLC was served with a complaint filed by UCB BioPharma SPRL in the US District Court for the District of Delaware (the District Court) alleging that *Synagis* infringed US Patent No. 7,566,771. In May 2017, the District Court granted the parties' joint stipulation to voluntarily terminate the litigation with prejudice.

28 Commitments and contingent liabilities *continued*

Tagrisso (osimertinib)

Patent proceedings outside the US

In Europe, in October 2016, Stada Arzneimittel AG filed an opposition to the grant of European Patent No. 2,736,895 (the '895 patent). The European Patent Office Opposition Hearing took place in January 2018 and the '895 patent was upheld.

Vimovo (naproxen/esomeprazole magnesium)

Patent proceedings outside the US

In Canada, in January 2015, AstraZeneca received two notices of allegation from Mylan Pharmaceuticals ULC (Mylan). In response, AstraZeneca and Pozen Inc. (now Aralez Pharmaceuticals Inc.), the licensee and patent holder respectively, commenced proceedings in relation to the *Vimovo* formulation patent (Canadian Patent No. 2,449,098). In February 2017, the Federal Court of Canada dismissed AstraZeneca's application. The Minister of Health has issued a marketing authorisation to Mylan.

Product liability litigation

Byetta/*Bydureon* (exenatide)

In the US, Amylin Pharmaceuticals, LLC, a wholly-owned subsidiary of AstraZeneca, and/or AstraZeneca are among multiple defendants in various lawsuits filed in federal and state courts involving claims of physical injury from treatment with *Byetta* and/or *Bydureon*. The lawsuits allege several types of injuries including pancreatitis, pancreatic cancer, thyroid cancer, and kidney cancer. A multidistrict litigation was established in the US District Court for the Southern District of California (the District Court) in regard to the alleged pancreatic cancer cases in federal courts. Further, a co-ordinated proceeding has been established in Los Angeles, California in regard to the various lawsuits in California state courts.

In November 2015, the District Court granted the defendants' motion for summary judgment and dismissed all claims alleging pancreatic cancer that accrued prior to 11 September 2015. In November 2017, the US Court of Appeals for the Ninth Circuit vacated the District Court's order and remanded for further discovery. The appeal of a similar motion, which was granted in favour of the defendants in the California state co-ordinated proceeding in May 2016, remains pending.

Crestor (rosuvastatin calcium)

In the US, AstraZeneca was defending a number of lawsuits alleging multiple types of injuries caused by the use of Crestor, including diabetes mellitus, various cardiac injuries, rhabdomyolysis, and/or liver and kidney injuries. AstraZeneca has resolved all active claims with regard to this matter.

Farxiga (dapagliflozin) and *Xigduo* (dapagliflozin/metformin HCl)

In the US, AstraZeneca has been named as a defendant in lawsuits involving plaintiffs claiming physical injury, including diabetic ketoacidosis and kidney injury/failure, from treatment with *Farxiga* and/or *Xigduo* XR. Cases with these allegations have been filed in several jurisdictions. In April 2017, the Judicial Panel on Multidistrict Litigation ordered transfer of any currently pending cases as well as any similar, subsequently filed cases to a co-ordinated and consolidated pre-trial multidistrict litigation proceeding in the US District Court for the Southern District of New York.

Nexium (esomeprazole magnesium)

In the US, AstraZeneca was defending product liability lawsuits brought in US federal and state courts by approximately 1,900 plaintiffs who alleged that *Nexium* caused osteoporotic injuries, such as bone deterioration, loss of bone density and/or bone fractures, but all such claims have now been dismissed with judgment entered in AstraZeneca's favour. In January 2017, the California Second Appellate Division affirmed the dismissal of the fewer than 40 cases in California state court and no further appeal was taken. There are currently no claims pending in the US that allege that *Nexium* caused osteoporotic or other bone-related injuries.

Nexium (esomeprazole magnesium) and *Losec*/*Prilosec* (omeprazole)

In the US, AstraZeneca is defending various lawsuits brought in federal and state courts involving multiple plaintiffs claiming that they have been diagnosed with kidney injuries following treatment with proton pump inhibitors, including *Nexium* and *Prilosec*. In May 2017, counsel for a group of such plaintiffs filed a motion with the Judicial Panel on Multidistrict Litigation (JPML) seeking the transfer of any currently pending federal court cases as well as any similar, subsequently filed cases to a co-ordinated and consolidated pre-trial multidistrict litigation (MDL) proceeding. In August 2017, the JPML granted the motion and consolidated the pending federal court cases in an MDL proceeding in federal court in New Jersey for pre-trial purposes.

In Canada, in July and August 2017, AstraZeneca was served with three putative class action lawsuits. Two of the lawsuits seek authorisation to represent individuals resident in Canada who allegedly suffered kidney injuries from the use of proton pump inhibitors, including *Nexium* and *Losec*, and the third, pending in Quebec, seeks authorisation to represent such individuals resident in Quebec.

Onglyza (saxagliptin) and *Kombiglyze* (saxagliptin and metformin)

In the US, AstraZeneca is defending various lawsuits alleging heart failure, cardiac failure, and/or death from treatment with Onglyza or Kombiglyze. In October 2017, counsel for a group of plaintiffs filed a motion with the Judicial Panel on Multidistrict Litigation seeking the transfer of any currently pending federal court cases as well as any similar, subsequently filed cases to a co-ordinated and consolidated pre-trial multidistrict litigation proceeding.

Seroquel (quetiapine fumarate)

In the US, in November 2017, AstraZeneca was named as one of several defendants in a lawsuit filed in Missouri involving one plaintiff alleging, among other things, wrongful death from treatment with *Seroquel*.

Commercial litigation

Amplimmune

In the US, in June 2017, AstraZeneca was served with a lawsuit filed by the stockholders' agents for Amplimmune, Inc. (Amplimmune) in Delaware State Court that alleged, among other things, breaches of contractual obligations relating to a 2013 merger agreement between AstraZeneca and Amplimmune.

Array BioPharma

In the US, in December 2017, AstraZeneca was served with a complaint filed in New York State court by Array BioPharma, Inc. (Array) that alleged, among other things, breaches of contractual obligations relating to a 2003 collaboration agreement between AstraZeneca and Array.

28 Commitments and contingent liabilities *continued*

Nexium settlement anti-trust litigation

In the US, AstraZeneca is a defendant in a multidistrict litigation class action and individual lawsuit alleging that AstraZeneca's settlements of certain patent litigation in the US relating to *Nexium* violated US anti-trust law and various state laws. A trial in the US District Court for the District of Massachusetts (the District Court) commenced in October 2014 and, in December 2014, a jury returned a verdict in favour of AstraZeneca and entered judgment in favour of AstraZeneca in September 2015. The plaintiffs appealed that judgment and, in November 2016, the US Court of Appeals for the First Circuit affirmed the District Court's decision. The plaintiffs did not file a petition for *writ of certiorari* with the US Supreme Court, and the federal appeals for this verdict are accordingly concluded.

Two lawsuits filed in Pennsylvania state court by various indirect purchasers of *Nexium* for similar matters remain pending.

Ocimum lawsuit

In the US, in December 2015, AstraZeneca was served with a complaint filed by Ocimum Biosciences, Ltd. (Ocimum) in the Superior Court for the State of Delaware that alleges, among other things, breaches of contractual obligations and misappropriation of trade secrets, relating to a now terminated 2001 licensing agreement between AstraZeneca and Gene Logic, Inc. (Gene Logic), the rights to which Ocimum purports to have acquired from Gene Logic.

Toprol-XL (metoprolol succinate)

In the US, in March 2015, AstraZeneca was served with a state court complaint filed by the Attorney General for the State of Louisiana (the State) alleging that, in connection with enforcement of its patents for *Toprol-XL*, it had engaged in unlawful monopolisation and unfair trade practices, causing the State government to pay increased prices for Toprol-XL. In February 2016, the State court heard oral argument on AstraZeneca's motion to dismiss and ordered the dismissal of the complaint with prejudice and judgment in AstraZeneca's favour. The State is appealing the dismissal.

Other commercial litigation

Anti-Terrorism Act Civil Lawsuit

In the US, in October 2017, AstraZeneca and certain other pharmaceutical and/or medical device companies were named as defendants in a complaint filed in federal court in the District of Columbia by US nationals (or their estates, survivors, or heirs) who were killed or wounded in Iraq between 2005 and 2009. The plaintiffs allege that the defendants violated the US Anti-Terrorism Act and various state laws by selling pharmaceuticals and medical supplies to the Iraqi Ministry of Health.

Telephone Consumer Protection Act litigation

In the US, in December 2016, AstraZeneca and several other entities were served with a complaint filed in the US District Court for the Southern District of Florida that alleges, among other things, violations of the Telephone Consumer Protection Act caused by the sending of unsolicited advertisements by facsimile. AstraZeneca's motion to dismiss is pending.

Government investigations/proceedings

Crestor (rosuvastatin calcium)

Qui tam litigation

In the US, in January and February 2014, AstraZeneca was served with lawsuits filed in the US District Court for the District of Delaware under the *qui tam* (whistleblower) provisions of the federal False Claims Act and related state statutes, alleging that AstraZeneca directed certain employees to promote *Crestor* off-label and provided unlawful remuneration to physicians in connection with the promotion of *Crestor*. The DOJ and all US states have declined to intervene in the lawsuits. This litigation has been stayed pending trial court disposition or earlier resolution of the Texas Attorney General litigation involving *Crestor* disclosed below.

Texas Attorney General litigation

In the US, in January 2015, following a previously disclosed investigation by the State of Texas into AstraZeneca's sales and marketing activities involving *Crestor*, AstraZeneca was served with a lawsuit in which the Texas Attorney General's office intervened in a state whistleblower action pending in Travis County Court, Texas. The lawsuit alleges that AstraZeneca engaged in inappropriate promotion of *Crestor* and improperly influenced the formulary status of *Crestor*.

Nexium (esomeprazole magnesium)

Federal Trade Commission inquiry

In the US, in 2008, AstraZeneca received a Civil Investigative Demand from the US Federal Trade Commission (FTC) seeking information regarding the *Nexium* patent litigation settlement with Ranbaxy Laboratories Ltd. This investigation was officially closed by the FTC in October 2017.

Seroquel IR (quetiapine fumarate) and *Seroquel XR* (quetiapine fumarate)

Qui tam litigation in New York

In the US, in September 2015, AstraZeneca was served with a lawsuit filed in US Federal Court in New York under the *qui tam* (whistleblower) provisions of the federal and certain state False Claims Acts. The lawsuit alleges that AstraZeneca misrepresented the safety profile of, and improperly promoted, *Seroquel*. The US government and the named states have declined to intervene in this case.

Qui tam litigation in Delaware

In the US, in April 2014, AstraZeneca was served with lawsuits filed in the US District Court for the District of Delaware under the *qui tam* (whistleblower) provisions of the federal False Claims Act and related state statutes, alleging that AstraZeneca directed certain employees to promote *Seroquel* off-label and provided unlawful remuneration to physicians in connection with the promotion of *Seroquel*. The DOJ and all US states have declined to intervene in the lawsuits. This litigation has been stayed pending trial court disposition or earlier resolution of the Texas Attorney General litigation involving *Seroquel* disclosed below.

Texas Attorney General litigation

In the US, in October 2014, following a previously disclosed investigation by the State of Texas (the State) into AstraZeneca's sales and marketing activities involving *Seroquel*, the Texas Attorney General's Office intervened in a State whistleblower action pending in Travis County Court, Texas (the County Court). The lawsuit alleges that AstraZeneca engaged in inappropriate promotion and made improper payments intended to influence

28 Commitments and contingent liabilities *continued*

the formulary status of *Seroquel*. The relief that the State seeks to recover from AstraZeneca includes trebled civil remedies, penalties, interest, and attorneys' fees pursuant to the Texas Medicaid Fraud Prevention Act and damages pursuant to Texas common law.

In June 2017, the County Court entered an order denying all of the State's motions for summary judgment except for the State's motion on the defence of waiver, and denying AstraZeneca's motion for summary judgment. The trial, which was scheduled for October 2017, has been postponed until the Texas Supreme Court resolves the appeals in unrelated cases called Nazari v. State and In re Xerox Corp. A provision has been taken with regard to claims brought by the State and other related lawsuits against AstraZeneca.

Synagis (palivizumab)

Litigation in New York

In the US, in June 2011, MedImmune received a demand from the US Attorney's Office for the Southern District of New York requesting certain documents related to the sales and marketing activities of *Synagis*. In July 2011, MedImmune received a similar court order to produce documents from the Office of the Attorney General for the State of New York Medicaid and Fraud Control Unit pursuant to what the government attorneys advised was a joint investigation. MedImmune has co-operated with these inquiries. In March 2017, MedImmune was served with a lawsuit filed in US Federal Court in New York by the Attorney General for the State of New York alleging that MedImmune inappropriately provided assistance to a single specialty care pharmacy.

In June 2017, AstraZeneca was served with a lawsuit in US Federal Court in New York by a relator under the *qui tam* (whistleblower) provisions of the federal and certain state False Claims Acts. The lawsuit was originally filed under seal in April 2009 and alleges that MedImmune made false claims about *Synagis*. In November 2017, AstraZeneca was served with an amended complaint in which a relator set forth additional false claims allegations relating to *Synagis*.

Florida Attorney General investigation

In May 2012, MedImmune received a *subpoena duces tecum* from the Office of Attorney General for the State of Florida Medicaid and Fraud Control Unit requesting certain documents related to the sales and marketing activities of *Synagis*. MedImmune accepted receipt of the request and has co-ordinated with the Florida government to provide the appropriate responses and co-operate with any related investigation. AstraZeneca is unaware of the nature or focus of the investigation; however, based on the requests, it appears to be similar to the inquiry from the State of New York (which is described above).

Other government investigations/proceedings

Additional government inquiries

As is true for most, if not all, major prescription pharmaceutical companies, AstraZeneca is currently involved in multiple inquiries into drug marketing and pricing practices. In addition to the investigations described above, various law enforcement offices have, from time to time, requested information from the Group. There have been no material developments in those matters.

Tax

Where tax exposures can be quantified, an accrual is made based on best estimates and management's judgement. Details of the movements in relation to material tax exposures are discussed below. As accruals can be built up over a long period of time but the ultimate resolution of tax exposures usually occurs at a point in time, and given the inherent uncertainties in assessing the outcomes of these exposures (which sometimes can be binary in nature), we could, in future periods, experience adjustments to these accruals that have a material positive or negative effect on our results in any particular period.

AstraZeneca faces a number of audits and reviews in jurisdictions around the world and, in some cases, is in dispute with the tax authorities. The issues under discussion are often complex and can require many years to resolve. Accruals for tax contingencies require management to make estimates and judgements with respect to the ultimate outcome of a tax audit, and actual results could vary from these estimates.

Transfer pricing and other international tax contingencies

The total net accrual included in the Group Financial Statements to cover the worldwide exposure to transfer pricing audits is $235m, a decrease of $85m compared with 2016 mainly due to the revision to the presentation of interest on tax contingencies and a reduction in accruals for transfer pricing contingencies as a result of tax authority discussions and audit settlements.

Management continues to believe that AstraZeneca's positions on all its transfer pricing audits and disputes are robust, and that AstraZeneca is appropriately provided, including the assessment where corresponding relief will be available. For transfer pricing audits where AstraZeneca and the tax authorities are in dispute, AstraZeneca estimates the potential for reasonably possible additional losses above and beyond the amount provided to be up to $30m (2016: $184m; 2015: $357m). However, management believes that it is unlikely that these additional losses will arise. It is possible that some of these contingencies may reduce in the future to the extent that any tax authority challenge is unsuccessful, or matters lapse following expiry of the relevant statutes of limitation resulting in a reduction in the tax charge in future periods.

Other tax contingencies

Included in the tax accrual is $932m relating to a number of other tax contingencies, a decrease of $76m mainly due to the revision to the presentation of interest on tax contingencies and releases following expiry of statute of limitations, partially offset by the impact of an additional year of transactions relating to contingencies for which accruals had already been established and exchange rate effects. For these tax exposures, AstraZeneca does not expect material additional losses. It is, however, possible that some of these contingencies may reduce in the future if any tax authority challenge is unsuccessful or matters lapse following expiry of the relevant statutes of limitation resulting in a reduction in the tax charge in future periods.

Timing of cash flows and interest

It is not possible to estimate the timing of tax cash flows in relation to each outcome. However, it is anticipated that a number of significant disputes may be resolved over the next one to two years.

Included within other receivables and payables is a net amount of interest arising on tax contingencies of $72m.

29 Operating leases

Total rentals under operating leases charged to profit were as follows:

	2017 $m	2016 $m	2015 $m
Operating leases	**137**	174	185

The future minimum lease payments under operating leases that have initial or remaining terms in excess of one year at 31 December 2017 were as follows:

	2017 $m	2016 $m	2015 $m
Obligations under leases comprise:			
Not later than one year	**112**	98	95
Later than one year and not later than five years	**304**	247	245
Later than five years	**107**	96	69
Total future minimum lease payments	**523**	441	409

30 Statutory and other information

	2017 $m	2016 $m	2015 $m
Fees payable to PricewaterhouseCoopers LLP and its associates:			
Group audit fee	**3.0**	–	–
Fees payable to PricewaterhouseCoopers LLP and its associates for other services:			
The audit of subsidiaries pursuant to legislation	**5.7**	–	–
Attestation under s404 of Sarbanes-Oxley Act 2002	**2.0**	–	–
Audit-related assurance services	**0.4**	–	–
Tax compliance services	**–**	–	–
Other assurance services	**–**	–	–
Fees payable to PricewaterhouseCoopers LLP in respect of the Group's pension schemes:			
The audit of subsidiaries' pension schemes	**–**	–	–
	11.1	–	–

	2017 $m	2016 $m	2015 $m
Fees payable to KPMG LLP and its associates:			
Group audit fee	**–**	2.8	3.2
Fees payable to KPMG LLP and its associates for other services:			
The audit of subsidiaries pursuant to legislation	**0.3**	5.4	5.4
Attestation under s404 of Sarbanes-Oxley Act 2002	**–**	1.8	1.8
Audit-related assurance services	**0.6**	0.7	0.7
Tax compliance services	**–**	–	0.1
Other assurance services	**0.8**	0.2	0.5
Fees payable to KPMG LLP in respect of the Group's pension schemes:			
The audit of subsidiaries' pension schemes	**0.2**	0.6	0.6
	1.9	11.5	12.3

Related party transactions

The Group had no material related party transactions which might reasonably be expected to influence decisions made by the users of these Financial Statements.

Key management personnel compensation

Key management personnel are defined for the purpose of disclosure under IAS 24 'Related Party Disclosures' as the members of the Board and the members of the SET.

	2017 $'000	2016 $'000	2015 $'000
Short-term employee benefits	**28,274**	23,725	29,265
Post-employment benefits	**2,469**	2,407	2,636
Share-based payments	**16,452**	20,377	17,885
	47,195	46,509	49,786

Total remuneration is included within employee costs (see Note 27).

31 Subsequent events

There were no material subsequent events.

Group Subsidiaries and Holdings

In accordance with section 409 of the Companies Act 2006 a full list of subsidiaries, partnerships, associates, joint ventures and joint arrangements, the country of incorporation, registered office address, and the effective percentage of equity owned as at 31 December 2017 are disclosed below. Unless otherwise stated the share capital disclosed comprises ordinary shares which are indirectly held by AstraZeneca PLC.

Unless otherwise stated the accounting year ends of subsidiaries are 31 December. The Group Financial Statements consolidate the Financial Statements of the Company and its subsidiaries at 31 December 2017.

At 31 December 2017	Group Interest
Wholly owned subsidiaries	
Argentina	
AstraZeneca S.A.	100%
Nicolas de Vedia 3616, Piso 8, Ciudad Autónoma de Buenos Aires, Argentina	
Australia	
AstraZeneca Holdings Pty Limited	100%
AstraZeneca PTY Limited	100%
Pharmaceutical Manufacturing Company Pty Limited	100%
Pharmaceutical Manufacturing Division Pty Limited	100%
66 Talavera Road, Macquarie Park, NSW 2113, Australia	
Austria	
AstraZeneca Österreich GmbH	100%
A-1030 Wien, Landstraßer Hauptstraße 1A, Austria	
Belgium	
AstraZeneca S.A. / N.V.	100%
Egide Van Ophemstraat 110 1180 Brussels, Belgium	
Brazil	
AstraZeneca do Brasil Limitada	100%
Rod. Raposo Tavares, KM 26, 9, Cotia, Brazil	
Bulgaria	
AstraZeneca Bulgaria EOOD	100%
36 Dragan Tzankov Blvd., District Izgrev, Sofia, 1057, Bulgaria	
Canada	
AstraZeneca Canada Inc.[1]	100%
Suite 5000, 1004 Middlegate Road, Ontario, L4Y 1M4, Canada	
Cayman Islands	
AZ Reinsurance Limited	100%
94 Solaris Avenue, Second Floor, Camana Bay, Grand Cayman, Cayman Islands	
Chile	
AstraZeneca S.A.	100%
AstraZeneca Farmaceutica Chile Limitada	100%
Av. Isidora Goyenechea 3477, 2nd Floor, Las Condes, Santiago, Chile	
China	
AstraZeneca Pharmaceuticals Co., Limited	100%
No. 2, Huangshan Road, Wuxi New District, China	
AstraZeneca (Wuxi) Trading Co. Ltd	100%
Building E (Building No. 5), Huirong Commercial Plaza, East Jinghui Road, Xinwu District, Wuxi, China	
AstraZeneca Investment (China) Co., Ltd	100%
No.199 Liangjing Road, China (Shanghai) Pilot Free Trade Zone, Shanghai, China	
AstraZeneca Pharmaceutical (China) Co. Ltd	100%
No 88 Yaocheng Avenue, Taizhou, Jiangsu Province, China	
AstraZeneca Pharmaceuticals Technologies (Beijing) Co., Ltd	100%
Unit 2203, 22F, No 8, Jianguomenwai Avenue, Chaoyang District, Beijing, China	
Colombia	
AstraZeneca Colombia S.A.S.	100%
Carrera 7 No. 71-21, Torre A, Piso 19, Bogota, D.C., Colombia	
Costa Rica	
AstraZeneca CAMCAR Costa Rica, S.A.	100%
Escazu, Guachipelin, Centro Corporativo Plaza Roble, Edificio Los Balcones, Segundo Nivel, San Jose, Costa Rica	
Croatia	
AstraZeneca d.o.o.	100%
Radnicka cesta 80, 10000 Zagreb, Croatia	
Czech Republic	
AstraZeneca Czech Republic, s.r.o.	100%
U Trezorky 921/2, 158 00 Prague 5, Czech Republic	
Denmark	
AstraZeneca A/S	100%
Arne Jacobsens Allé 13, DK-2300, Copenhagen S, Denmark	
Egypt	
AstraZeneca Egypt for Pharmaceutical Industries JSC	100%
Villa 133, Road 90 North, New Cairo, Egypt	
AstraZeneca Egypt for Trading LLC	100%
14C Ahmed Kamel Street, New Maadi, Cairo, Egypt	
Drimex LLC	100%
Villa 47, Road 270, New Maadi, Cairo 11435, Egypt	
Estonia	
AstraZeneca Eesti OÜ	100%
Jarvevana tee 9, Tallinn, 11314, Estonia	
Finland	
AstraZeneca OY.	100%
Itsehallintokuja 4, Espoo, 02600, Finland	
France	
AstraZeneca S.A.S.	100%
AstraZeneca Finance S.A.S.	100%
AstraZeneca Holding France S.A.S.	100%
AstraZeneca Reims S.A.S.	100%
Tour Carpe Diem-31, Place des Corolles, 92400 Courbevoie, France	
AstraZeneca Dunkerque Production SCS	100%
224 Avenue de la Dordogne, 59640 Dunkerque, France	
Germany	
AstraZeneca Holding GmbH[2]	100%
AstraZeneca GmbH	100%
Tinsdaler Weg 183, Wedel, D-22880, Germany	
Sofotec GmbH	100%
Benzstrasse 1-3, 61352, Bad Homburg v.d. Hohe, Germany	
Definiens AG	100%
Bernhard-Wicki-Straße 5, 80636, Munich, Germany	
Greece	
AstraZeneca S.A.	100%
Theotokopoulou 4 & Astronafton, Athens, 151 25, Greece	
Hong Kong	
AstraZeneca Hong Kong Limited	100%
18/F., Shui On Centre, 6-8 Harbour Road, Wanchai, Hong Kong	
Hungary	
AstraZeneca Kft	100%
2nd floor, 134-146 building B, Bocskai str., Budapest, 1113, Hungary	
India	
AstraZeneca India Private Limited[3]	100%
12th Mile on Bellary Road, Venkatala Kattigenahalli, Yelahanka, Bangalore-560 063, India	
Iran	
AstraZeneca Pars Company	100%
Suite 1, 1st Floor No. 39, Alvand Ave., Argantin Sq., Tehran 1516673114, Iran	

At 31 December 2017	Group Interest
Ireland	
AstraZeneca Pharmaceuticals (Ireland) Designated Activity Company	100%
4th Floor, South Bank House, Barrow Street, Dublin, 4, Republic of Ireland	
Israel	
AstraZeneca Israel Ltd	100%
6 Hacharash St., Hod Hasharon 4524075, Israel	
Italy	
Simesa SpA	100%
AstraZeneca SpA	100%
Palazzo Ferraris, via Ludovico il Moro 6/c 20080, Basiglio (Milan), Italy	
Japan	
AstraZeneca K.K.	100%
3-1, Ofuka-cho, Kita-ku, Osaka, 530-0011, Japan	
Kenya	
AstraZeneca Pharmaceuticals Limited	100%
Chaka Place, Ground Floor, Argwings Kodhek, Nairobi, Kenya	
Latvia	
AstraZeneca Latvija SIA	100%
Skanstes iela 50, Riga, LV-1013, Latvia	
Lithuania	
AstraZeneca Lietuva UAB	100%
Jasinkio 16A, Vilnius, LT-03163, Lithuania	
Luxembourg	
AstraZeneca Luxembourg S.A.	100%
Am Brill 7 B – L-3961 Ehlange – Grand Duchy du Luxembourg, Luxembourg	
Malaysia	
AstraZeneca Asia-Pacific Business Services Sdn Bhd	100%
Level 8, Unit 8.01-8.05 Menara UAC, Jalan PJU 7/5, Mutiara Damansara, 47800 Petaling Jaya, Selangor, Malaysia	
AstraZeneca Sdn Bhd	100%
Level 12, Surian Tower, No. 1 Jalan PJU 7/3, Mutiara Damansara, 47810 Petaling Jaya, Selangor, Malaysia	
Mexico	
AstraZeneca, S.A. de C.V.	100%
Av. Periferico Sur 4305 interior 5, Colonia Jardines en la Montana, Mexico City, Tlalpan Distrito Federal, CP14210, Mexico	
AstraZeneca Health Care Division, S.A. de C.V.	100%
Avenida Lomas Verdes 67 Colonia Lomas Verdes, Naucalpan de Juarez, CP 53120, Mexico	
Morocco	
AstraZeneca Maroc SARLAU	100%
92 Boulevard Anfa ETG 2, Casablanca 20000, Morocco	

At 31 December 2017	Group Interest
The Netherlands	
AstraZeneca B.V.	100%
AstraZeneca Continent B.V.	100%
AstraZeneca Gamma B.V.	100%
AstraZeneca Holdings B.V.	100%
AstraZeneca Jota B.V.	100%
AstraZeneca Rho B.V.	100%
AstraZeneca Sigma B.V.	100%
AstraZeneca Zeta B.V.	100%
Prinses Beatrixlaan 582, 2595BM, The Hague, The Netherlands	
MedImmune Pharma B.V.	100%
Lagelandsweeg 78, 6545 CG Nijmegen, The Netherlands	
New Zealand	
AstraZeneca Limited	100%
Level 1, 22-28 Customs Street East, Auckland Central, Auckland, 1010, New Zealand	
Nigeria	
AstraZeneca Nigeria Limited	100%
No.9 Joel Ogunaike Street, GRA Ikeja, Lagos, Nigeria	
Norway	
AstraZeneca AS	100%
Grenseveien 92, Box 6050 Etterstad, NO-0602 Oslo, Norway	
Pakistan	
AstraZeneca Pharmaceuticals Pakistan (Private) Limited[4]	100%
Office No 1, 2nd Floor, Sasi Arcade, Block 7, Main Clifton Road, Karachi, Pakistan	
Panama	
AstraZeneca CAMCAR, S.A.	100%
Bodega #1, Parque Logistico MIT, Carretera Hacia Coco Solo, Colon, Panama	
Peru	
AstraZeneca Peru S.A.	100%
Av. El Derby 055, Torre 2. Piso 5. Of. 503. Santiago de Surco, Lima, Peru	
Philippines	
AstraZeneca Pharmaceuticals (Phils.) Inc.	100%
16th Floor, Inoza Tower, 40th Street, Bonifacio Global City, Taguig 1634, Philippines	
Poland	
AstraZeneca Pharma Poland Sp.z.o.o.	100%
Postepu 14, 02-676, Warszawa, Poland	
Portugal	
Astra Alpha Produtos Farmaceuticos Lda	100%
AstraZeneca Produtos Farmaceuticos Lda	100%
Novastra Promoção e Comércio Farmacêutico Lda	100%
Novastuart Produtos Farmaceuticos Lda	100%
Stuart-Produtos Farmacêuticos Lda	100%

At 31 December 2017	Group Interest
Zeneca Epsilon – Produtos Farmacêuticos Lda	100%
Zenecapharma Produtos Farmaceuticos Lda	100%
Rua Humberto Madeira, No 7, Queluz de Baixo, 2730-097, Barcarena, Portugal	
Puerto Rico	
IPR Pharmaceuticals, Inc.	100%
Road 188, San Isidro Industrial Park, Canóvanas, Puerto Rico 00729	
Romania	
AstraZeneca Pharma S.R.L.	100%
12 Menuetului Street, Bucharest Business Park, Building D, West Wing, 1st Floor, Sector 1, Bucharest, 013713, Romania	
Russia	
AstraZeneca Industries, LLC	100%
AstraZeneca Pharmaceuticals, LLC	100%
125284, Begovaya Str, 3, block 1, Moscow, Russian Federation	
Singapore	
AstraZeneca Singapore Pte Limited	100%
10 Kallang Avenue #12-10, Aperia Tower 2, 339510, Singapore	
South Africa	
Astra Pharmaceuticals (Pty) Limited	100%
AstraZeneca Pharmaceuticals (Pty) Limited	100%
17 Georgian Crescent West, Northdowns Office Park, Bryanston, 2041, South Africa	
South Korea	
AstraZeneca Korea Co. Ltd	100%
17th Floor, Luther Building, 42, Olympic-ro 35da-gil Songpa-gu, Seoul, South Korea	
Spain	
AstraZeneca Farmaceutica Spain S.A.	100%
AstraZeneca Farmaceutica Holding Spain, S.A.	100%
Laboratorio Beta, S.A.	100%
Laboratorio Lailan, S.A.	100%
Laboratorio Odin, S.A.	100%
Laboratorio Tau S.A.	100%
Parque Norte, Edificio Álamo, C/Serrano Galvache no 56., 28033 Madrid, Spain	
Sweden	
Astra Export & Trading Aktiebolag	100%
Astra Lakemedel Aktiebolag	100%
AstraZeneca AB	100%
AstraZeneca Biotech AB	100%
AstraZeneca BioVentureHub AB	100%
AstraZeneca Holding Aktiebolag[2]	100%
AstraZeneca International Holdings Aktiebolag[5]	100%
AstraZeneca Nordic AB	100%
AstraZeneca Pharmaceuticals Aktiebolag	100%
AstraZeneca Södertälje 2 AB	100%

Group Subsidiaries and Holdings
continued

At 31 December 2017	Group Interest
Stuart Pharma Aktiebolag	100%
Tika Lakemedel Aktiebolag	100%
SE-151 85 Södertälje, Sweden	
Aktiebolaget Hassle	100%
Symbicom Aktiebolag[5]	100%
431 83 Molndal, Sweden	
Astra Tech International Aktiebolag	100%
Box 14, 431 21 Molndal, Sweden	
Switzerland	
AstraZeneca AG	100%
AstraZeneca, Grafenauweg 10, CH-6301, Zug, Switzerland	
Spirogen Sarl[5]	100%
Rue du Grand-Chêne 5, CH-1003 Lausanne, Switzerland	
Taiwan	
AstraZeneca Taiwan Limited[6]	100%
21st Floor, Taipei Metro Building 207, Tun Hwa South Road, SEC 2 Taipei, Taiwan, Republic of China	
Thailand	
AstraZeneca (Thailand) Limited	100%
Asia Centre 19th floor, 173/20, South Sathorn Rd, Khwaeng Thungmahamek, Khet Sathorn, Bangkok, 10120, Thailand	
Tunisia	
AstraZeneca Tunisie SaRL	100%
Lot n°1.5.5 les jardins du lac, bloc B les berges du lac Tunis, Tunisia	
Turkey	
AstraZeneca Ilac Sanayi ve Ticaret Limited Sirketi	100%
YKB Plaza, B Blok, Kat:3-4, Levent/Beşiktaş, Istanbul, Turkey	
Zeneca Ilac Sanayi Ve Ticaret Anonim Sirketi	100%
Büyükdere Cad., Y.K.B. Plaza, B Blok, Kat:4, Levent/Beşiktaş, Istanbul, Turkey	
Ukraine	
AstraZeneca Ukraina LLC	100%
13, Pymonenko Street, building 1, Kiev, 04050, Ukraine	
United Arab Emirates	
AstraZeneca FZ-LLC	100%
P.O. Box 27614, Block D, Dubai Healthcare City, Oud Mehta Road, Dubai, United Arab Emirates	
United Kingdom	
Ardea Biosciences Limited	100%
Arrow Therapeutics Limited	100%
Astra Pharmaceuticals Limited	100%
AstraPharm[5]	100%
AstraZeneca China UK Limited	100%

At 31 December 2017	Group Interest
AstraZeneca Death In Service Trustee Limited	100%
AstraZeneca Employee Share Trust Limited	100%
AstraZeneca Finance Limited	100%
AstraZeneca Intermediate Holdings Limited[2]	100%
AstraZeneca Investments Limited	100%
AstraZeneca Japan Limited	100%
AstraZeneca Nominees Limited	100%
AstraZeneca Quest Limited	100%
AstraZeneca Share Trust Limited	100%
AstraZeneca Sweden Investments Limited	100%
AstraZeneca Treasury Limited[5]	100%
AstraZeneca UK Limited	100%
AstraZeneca US Investments Limited[2]	100%
AZENCO2 Limited	100%
AZENCO4 Limited	100%
Cambridge Antibody Technology Group Limited	100%
KuDOS Horsham Limited	100%
KuDOS Pharmaceuticals Limited	100%
Meronem Group Limited	100%
Zenco (No 8) Limited	100%
Zeneca Finance (Netherlands) Company	100%
1 Francis Crick Avenue, Cambridge Biomedical Campus, Cambridge, CB2 0AA, United Kingdom	
MedImmune Limited	100%
Milstein Building, Granta Park, Cambridge, CB21 6GH, United Kingdom	
MedImmune U.K. Limited	100%
Plot 6, Renaissance Way, Boulevard Industry Park, Liverpool, L24 9JW, United Kingdom	
United States	
Amylin Pharmaceuticals, LLC[7]	100%
AstraZeneca Collaboration Ventures, LLC[7]	100%
AstraZeneca Pharmaceuticals LP[8]	100%
AstraZeneca, LLC[7]	100%
AstraZeneca LP[8]	100%
Atkemix Nine Inc.	100%
Atkemix Ten Inc.	100%
BMS Holdco, Inc.	100%
Corpus Christi Holdings Inc.	100%
Omthera Pharmaceuticals, Inc.	100%
Stauffer Management Company LLC[7]	100%
Zeneca Holdings Inc.	100%
Zeneca Inc.	100%
Zeneca Wilmington Inc.[2]	100%
1800 Concord Pike, Wilmington DE, 19803, United States	
ZS Pharma Inc.	100%
1100 Park Place, Suite 300, San Mateo, CA 94403, United States	
AlphaCore Pharma, LLC[7]	100%
333 Parkland Plaza, Suite 5, Ann Arbor, MI 48103, United States	

At 31 December 2017	Group Interest
Amylin Ohio LLC[7]	100%
8814 Trade Port Drive, West Chester, OH 45011, United States	
Ardea Biosciences, Inc.	100%
4939 Directors Place, San Diego, CA 92121, United States	
AZ-Mont Insurance Company	100%
76 St Paul Street, Suite 500, Burlington, VT 05401, United States	
Definiens Inc.	100%
1808 Aston Avenue, Suite 190, Carlsbad, CA 92008, United States	
MedImmune Biologics, Inc.	100%
MedImmune, LLC[7]	100%
MedImmune Ventures, Inc.	100%
One MedImmune Way, Gaithersburg, MD 20878, United States	
Optein, Inc.	100%
2711 Centerville Road, Suite 400, Wilmington, DE 1989, United States	
Pearl Therapeutics, Inc.	100%
200 Cardinal Way, Redwood City, CA 94063, United States	
Uruguay	
AstraZeneca S.A.[6]	100%
Yaguarón 1407 of 1205, Montevideo, Uruguay	
Venezuela	
AstraZeneca Venezuela S.A.	100%
Gotland Pharma S.A.	100%
Av. La Castellana, Torre La Castellana, Piso 5, Oficina 5-G, 5-H, 5-I, Urbanización La Castellana, Municipio Chacao, Estado Bolivariano de Miranda, Venezuela	

Subsidiaries where the effective interest is less than 100%

Algeria	
SPA AstraZeneca Al Djazair[9]	65.77%
No 20 Zone Macro Economique, dar El Medina-Hydra, Alger, Algeria	
India	
AstraZeneca Pharma India Limited[3]	75%
Block N1, 12th Floor, Manyata Embassy Business Park, Rachenahalli, Outer Ring Road, Bangalore-560 045, India	
Indonesia	
P.T. AstraZeneca Indonesia	95%
Perkantoran Hijau Arkadia Tower F, 3rd Floor, Jl. T.B. Simatupang Kav. 88, Jakarta, 12520, Indonesia	

At 31 December 2017	Group Interest
The Netherlands	
Acerta Pharma B.V.	55%
Aspire Therapeutics B.V.	55%
Kloosterstraat 9, 5349 AB, Oss, The Netherlands	
United States	
Acerta Pharma LLC[7]	55%
2200 Bridge Parkway, Suite 101, Redwood City, CA 94065, United States	
Joint Ventures	
Hong Kong	
WuXi MedImmune Biopharmaceutical Co., Limited	50%
Room 1902, 19/F, Lee Garden One, 33 Hysan Avenue, Causeway Bay, Hong Kong	
United Kingdom	
Archigen Biotech Limited[9]	50%
Centus Biotherapeutics Limited[9]	50%
1 Francis Crick Avenue, Cambridge Biomedical Campus, Cambridge, CB2 0AA, United Kingdom	
United States	
Montrose Chemical Corporation of California	50%
Suite 380, 600 Ericksen Ave N/E, Bainbridge Island, United States	
Significant Holdings	
Australia	
Armaron Bio Ltd[10]	22.94%
Level 1, 120 Jolimont Road, East Melbourne 3002 VIC, Australia	
China	
Dizal (Jiangsu) Pharmaceutical Co., Ltd.[11]	48.3%
Suite 4105, Building E (Building No.5) of Huirong Plaza, East Jinghui Road, Xinwu District, Wuxi, Jiangsu Province, China	
United Kingdom	
Apollo Therapeutics LLP[7]	25%
Stevenage Biosciences Catalyst, Gunnels Wood Road, Stevenage, Hertfordshire, SG1 2FX, United Kingdom	
United States	
C.C.Global Chemicals Company	37.5%
PO Box 7, MS2901, Texas, TX76101-0007, United States	
Associated Holdings	
New Zealand	
Adherium Limited	4.62%
Level 2, 204 Quay Street, Auckland, 1010, New Zealand	
Switzerland	
ADC Therapeutics Sàrl[12]	7.3%
Biopôle, Route de la Corniche 3B, 1066 Epalinges, Switzerland	
United Kingdom	
Circassia Pharmaceuticals PLC	14.2%
The Magdalen Centre, Robert Robinson Avenue, Oxford Science Park, Oxford, Oxfordshire, OX4 4GA, United Kingdom	

At 31 December 2017	Group Interest
Datapharm Communications Limited[7,13]	12.5%
Ground Floor, Pascal Place, Randalls Way, Leatherhead, Surrey, KT22 7TW, United Kingdom	
Entasis Therapeutics Limited[14]	18.49%
3rd Floor, 1 Ashley Road, Altrincham, Cheshire, WA14 2DT, United Kingdom	
Mereo Biopharma Group PLC	2.7%
4th Floor, One, Cavendish Place, London, W1G 0QF, United Kingdom	
Silence Therapeutics PLC	0.17%
27 Eastcastle Street, London, W1W 8DH, United Kingdom	
United States	
AbMed Corporation[15]	18%
65 Cummings Park Drive, Woburn, MA 01801, United States	
Affinita Biotech, Inc.[16]	16.23%
329 Oyster Point Blvd., 3rd Floor, South San Francisco, CA 94080, United States	
Albireo Pharma, Inc.	5.71%
10 Post Office Square, Suite 502 South, Boston, MA 02109, United States	
Biohaven Pharmaceutical Holding Company Ltd.	0.45%
234 Church Street, New Haven, CT 06510, United States	
Biodesix Inc.[17]	0.07%
2970 Wilderness Place, Suite 100, Boulder, CO 80301, United States	
BlinkBio, Inc.	0.45%
P.O. Box 1966, Jupiter, FL 33468, United States	
Cerapedics, Inc.[18]	8.8%
11025 Dover St #1600, Broomfield, CO 80021, United States	
Corvidia Corporation[17]	19%
35 Gatehouse Drive, Waltham, MA 02451, United States	
Elusys Therapeutics, Inc.[19]	7.2%
25 Riverside Drive, Unit One, Pine Brook, NJ 07058, United States	
FibroGen, Inc.	1.01%
409 Illinois St., San Francisco, CA 94158, United States	
G1 Therapeutics, Inc.	10.41%
79 T.W. Alexander Drive, 4401 Research Commons, Suite 105, Research Triangle Park, NC 7709, United States	
Hydra Biosciences Inc.	4.27%
45 Moulton Street, Cambridge, MA 02138, United States	
Inotek Pharmaceuticals Corporation	7.05%
91 Hartwell Ave, 2nd Floor, Lexington, MA 02421, United States	
Millendo Therapeutics, Inc.[10]	4.42%
301 North Main Street, Suite 100, Ann Arbor, MI 48104, United States	
Moderna Therapeutics, Inc.[20]	8.32%
320 Bent Street, Cambridge, MA 02141, United States	

At 31 December 2017	Group Interest
Myotherix Inc[10]	8.27%
29540 Kohoutek Way, Union City, CA 94587, United States	
Nano Precision Medical, Inc.	5.58%
5858 Horton St Suite 393, Emeryville, CA 94608, United States	
PhaseBio Pharmaceuticals, Inc.[18]	14.39%
One Great Valley, Parkway, Suite 30, Malvern, PA 19355, United States	
Rani Therapeutics, LLC[21]	0.97%
2051 Ringwood Ave, San Jose, CA 95116, United States	
Regulus Therapeutics Inc.	3.39%
10614 Science Center Dr., San Diego, CA 92121, United States	

[1] Ownership held in ordinary and class B special shares.
[2] Directly held by AstraZeneca PLC.
[3] Accounting year end is 31 March.
[4] Accounting year end is 30 June.
[5] Ownership held in class A and class B shares.
[6] Ownership held in common shares and special shares.
[7] Ownership held as membership interest.
[8] Ownership held as partnership interest.
[9] Ownership held in class A shares.
[10] Ownership held in class B preference shares.
[11] Voting rights and percentages vary depending on the subject matter and business to be voted on.
[12] Ownership held in class B preference shares, class C preference shares, class D preference shares and class E preference shares.
[13] A company limited by guarantee.
[14] Ownership held in ordinary shares and class A shares.
[15] Ownership held in common shares and series A preferred shares.
[16] Ownership held in class A voting and class A non-voting shares.
[17] Ownership held in series A preferred stock.
[18] Ownership held in class C preference shares.
[19] Ownership held in class D preference shares.
[20] Ownership held in class D preference shares, class E preference shares and class F preference shares.
[21] Ownership held in class C-1 preference shares.

Company Balance Sheet
at 31 December

AstraZeneca PLC

	Notes	2017 $m	2016 $m
Fixed assets			
Fixed asset investments	1	**31,482**	30,449
Current assets			
Debtors – other		**11**	14
Debtors – amounts owed by Group undertakings		**7,995**	8,935
		8,006	8,949
Creditors: Amounts falling due within one year			
Non-trade creditors	2	**(325)**	(518)
Interest-bearing loans and borrowings	3	**(1,397)**	(1,749)
		(1,722)	(2,267)
Net current assets		**6,284**	6,682
Total assets less current liabilities		**37,766**	37,131
Creditors: Amounts falling due after more than one year			
Amounts owed to Group undertakings	3	**(283)**	(283)
Interest-bearing loans and borrowings	3	**(15,197)**	(14,138)
		(15,480)	(14,421)
Net assets		**22,286**	22,710
Capital and reserves			
Called-up share capital	4	**317**	316
Share premium account		**4,393**	4,351
Capital redemption reserve		**153**	153
Other reserves		**2,549**	2,583
Profit and loss account		**14,874**	15,307
Shareholders' funds		**22,286**	22,710

$m means millions of US dollars.

The Company's profit for the year was $3,109m (2016: $3,699m).

The Company Financial Statements from page 194 to 198 were approved by the Board on 2 February 2018 and were signed on its behalf by

Pascal Soriot Director

Marc Dunoyer Director

Company's registered number 02723534

Statement of Changes in Equity

For the year ended 31 December

	Share capital $m	Share premium account $m	Capital redemption reserve $m	Other reserves $m	Profit and loss account $m	Total equity $m
At 1 January 2016	316	4,304	153	2,623	15,147	22,543
Total comprehensive income for the period						
Profit for the period	–	–	–	–	3,699	3,699
Amortisation of loss on cash flow hedge	–	–	–	–	1	1
Total comprehensive income for the period	–	–	–	–	3,700	3,700
Transactions with owners, recorded directly in equity						
Dividends	–	–	–	–	(3,540)	(3,540)
Capital contributions for share-based payments	–	–	–	(40)	–	(40)
Issue of Ordinary Shares	–	47	–	–	–	47
Total contributions by and distributions to owners	–	47	–	(40)	(3,540)	(3,533)
At 31 December 2016	316	4,351	153	2,583	15,307	22,710
Total comprehensive income for the period						
Profit for the period	**–**	**–**	**–**	**–**	**3,109**	**3,109**
Amortisation of loss on cash flow hedge	**–**	**–**	**–**	**–**	**1**	**1**
Total comprehensive income for the period	**–**	**–**	**–**	**–**	**3,110**	**3,110**
Transactions with owners, recorded directly in equity						
Dividends	**–**	**–**	**–**	**–**	**(3,543)**	**(3,543)**
Capital contributions for share-based payments	**–**	**–**	**–**	**(34)**	**–**	**(34)**
Issue of Ordinary Shares	**1**	**42**	**–**	**–**	**–**	**43**
Total contributions by and distributions to owners	**1**	**42**	**–**	**(34)**	**(3,543)**	**(3,534)**
At 31 December 2017	**317**	**4,393**	**153**	**2,549**	**14,874**	**22,286**

At 31 December 2017, $14,874m (2016: $15,307m) of the profit and loss account reserve was available for distribution. Included in other reserves is a special reserve of $157m (2016: $157m), arising on the redenomination of share capital in 1999.

Included within other reserves at 31 December 2017 is $708m (2016: $742m) in respect of cumulative share-based payment awards. These amounts are not available for distribution.

Company Accounting Policies

Basis of presentation of financial information

These financial statements were prepared in accordance with FRS 101 'Reduced Disclosure Framework'.

In preparing these financial statements, the Company applied the recognition, measurement and disclosure requirements of International Financial Reporting Standards as adopted by the EU (Adopted IFRSs), but makes amendments where necessary in order to comply with the Companies Act 2006 and has set out below where advantage of the FRS 101 disclosure exemptions has been taken.

In these financial statements, the Company has applied the exemptions available under FRS 101 in respect of the following disclosures:

> Statement of Cash Flows and related notes
> disclosures in respect of transactions with wholly owned subsidiaries
> disclosures in respect of capital management
> the effects of new but not yet effective IFRSs
> disclosures in respect of the compensation of Key Management Personnel.

As the Group Financial Statements (presented on pages 135 to 193) include the equivalent disclosures, the Company has also taken the exemptions under FRS 101 available in respect of the following disclosures:

> IFRS 2 'Share-based Payment' in respect of group settled share-based payments
> certain disclosures required by IFRS 13 'Fair Value Measurement' and the disclosures required by IFRS 7 'Financial Instrument Disclosures'.

No individual profit and loss account is prepared as provided by section 408 of the Companies Act 2006.

The accounting policies set out below have, unless otherwise stated, been applied consistently to all periods presented in these financial statements.

Basis of accounting

The Company Financial Statements are prepared under the historical cost convention, in accordance with the Companies Act 2006.

The following paragraphs describe the main accounting policies, which have been applied consistently.

Foreign currencies

Profit and loss account items in foreign currencies are translated into US dollars at average rates for the relevant accounting periods. Monetary assets and liabilities are translated at exchange rates prevailing at the date of the Company Balance Sheet. Exchange gains and losses on loans and on short-term foreign currency borrowings and deposits are included within net interest payable. Exchange differences on all other transactions are taken to operating profit.

Taxation

The current tax payable is based on taxable profit for the year. Taxable profit differs from reported profit because taxable profit excludes items that are either never taxable or tax deductible or items that are taxable or tax deductible in a different period. The Company's current tax assets and liabilities are calculated using tax rates that have been enacted or substantively enacted by the reporting date.

Deferred tax is provided using the balance sheet liability method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax assets are recognised to the extent that it is probable that taxable profit will be available against which the asset can be utilised. This requires judgements to be made in respect of the availability of future taxable income.

No deferred tax asset or liability is recognised in respect of temporary differences associated with investments in subsidiaries and branches where the Company is able to control the timing of reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

The Company's deferred tax assets and liabilities are calculated using tax rates that are expected to apply in the period when the liability is settled or the asset realised based on tax rates that have been enacted or substantively enacted by the reporting date.

Accruals for tax contingencies require management to make judgements and estimates of exposures in relation to tax audit issues. Tax benefits are not recognised unless the tax positions will probably be sustained based upon management's interpretation of applicable laws and regulations and the likelihood of settlement.

Once considered to be probable, management reviews each material tax benefit to assess whether a provision should be taken against full recognition of the benefit on the basis of potential settlement through negotiation and/or litigation. Accruals for tax contingencies are measured using the single best estimate of likely outcome approach.

Investments

Fixed asset investments, including investments in subsidiaries, are stated at cost and reviewed for impairment if there are indications that the carrying value may not be recoverable.

Share-based payments

The issuance by the Company to employees of its subsidiaries of a grant of awards over the Company's shares, represents additional capital contributions by the Company to its subsidiaries. An additional investment in subsidiaries results in a corresponding increase in shareholders' equity. The additional capital contribution is based on the fair value of the grant issued, allocated over the underlying grant's vesting period, less the market cost of shares charged to subsidiaries in settlement of such share awards.

Financial instruments

Loans and other receivables are held at amortised cost. Long-term loans payable are held at amortised cost.

Litigation

Through the normal course of business, the AstraZeneca Group is involved in legal disputes, the settlement of which may involve cost to the Company. Provision is made where an adverse outcome is probable and associated costs can be estimated reliably. In other cases, appropriate descriptions are included.

Notes to the Company Financial Statements

1 Fixed asset investments

	Investments in subsidiaries		
	Shares $m	Loans $m	Total $m
At 1 January 2017	**16,026**	**14,423**	**30,449**
Additions	**–**	**1,987**	**1,987**
Transfer to current assets	**–**	**(1,399)**	**(1,399)**
Capital reimbursement	**(30)**	**–**	**(30)**
Exchange	**–**	**463**	**463**
Amortisation	**–**	**12**	**12**
At 31 December 2017	**15,996**	**15,486**	**31,482**

A list of subsidiaries is included on pages 190 to 193.

2 Non-trade creditors

	2017 $m	2016 $m
Amounts due within one year		
Short-term borrowings	**199**	371
Other creditors	**119**	140
Amounts owed to Group undertakings	**7**	7
	325	518

3 Loans

		Repayment dates	2017 $m	2016 $m
Amounts due within one year				
Interest-bearing loans and borrowings (unsecured)				
Floating rate notes	US dollars	2018	**399**	–
1.75% Callable bond	US dollars	2018	**998**	–
5.9% Callable bond	US dollars	2017	**–**	1,749
			1,397	1,749
Amounts due after more than one year				
Amounts owed to Group undertakings (unsecured)				
7.2% Loan	US dollars	2023	**283**	283
Interest-bearing loans and borrowings (unsecured)				
Floating rate notes	US dollars	2018	**–**	399
1.75% Callable bond	US dollars	2018	**–**	998
1.95% Callable bond	US dollars	2019	**999**	998
2.375% Callable bond	US dollars	2020	**1,591**	1,589
0.875% Non-callable bond	euros	2021	**890**	782
0.25% Callable bond	euros	2021	**594**	522
Floating rate bond	US dollars	2022	**249**	–
2.375% Callable bond	US dollars	2022	**992**	–
0.75% Callable bond	euros	2024	**1,067**	937
3.375% Callable bond	US dollars	2025	**1,978**	1,976
3.125% Callable bond	US dollars	2027	**742**	–
1.25% Callable bond	euros	2028	**941**	827
5.75% Non-callable bond	pounds sterling	2031	**468**	426
6.45% Callable bond	US dollars	2037	**2,720**	2,719
4% Callable bond	US dollars	2042	**987**	986
4.375% Callable bond	US dollars	2045	**979**	979
			15,197	14,138

3 Loans *continued*

	2017 $m	2016 $m
Loans are repayable:		
After five years from balance sheet date	**10,165**	9,133
From two to five years	**4,316**	3,891
From one to two years	**999**	1,397
Within one year	**1,397**	1,749
Total unsecured	**16,877**	16,170

With the exception of the 2018 and 2022 floating rate notes, all loans are at fixed interest rates. Accordingly, the fair values of the loans will change as market rates change. However, since the loans are held at amortised cost, changes in interest rates and the credit rating of the Company do not have any effect on the Company's net assets.

4 Share capital

Details of share capital movements in the year are included in Note 22 to the Group Financial Statements.

5 Contingent liabilities

The Company is named as a party to legal proceedings in the *Farxiga* product liability litigation and the Array BioPharma Inc. commercial litigation, each of which are described more fully in Note 28 to the Group Financial Statements.

Other

The Company has guaranteed the external borrowing of a subsidiary in the amount of $286m.

6 Statutory and other information

The Directors were paid by another Group company in 2017 and 2016.

7 Subsequent events

There were no material subsequent events.

Group Financial Record

For the year ended 31 December	2013 $m	2014 $m	2015 $m	2016 $m	2017 $m
Revenue and profits					
Product Sales	25,711	26,095	23,641	21,319	**20,152**
Externalisation Revenue	95	452	1,067	1,683	**2,313**
Cost of sales	(5,261)	(5,842)	(4,646)	(4,126)	**(4,318)**
Distribution costs	(306)	(324)	(339)	(326)	**(310)**
Research and development expense	(4,821)	(5,579)	(5,997)	(5,890)	**(5,757)**
Selling, general and administrative costs	(12,206)	(13,000)	(11,112)	(9,413)	**(10,233)**
Other operating income and expense	500	335	1,500	1,655	**1,830**
Operating profit	3,712	2,137	4,114	4,902	**3,677**
Finance income	50	78	46	67	**113**
Finance expense	(495)	(963)	(1,075)	(1,384)	**(1,508)**
Share of after tax losses in associates and joint ventures	–	(6)	(16)	(33)	**(55)**
Profit before tax	3,267	1,246	3,069	3,552	**2,227**
Taxation	(696)	(11)	(243)	(146)	**641**
Profit for the period	2,571	1,235	2,826	3,406	**2,868**
Other comprehensive income for the period, net of tax	(113)	(1,506)	(338)	(1,778)	**639**
Total comprehensive income for the period	2,458	(271)	2,488	1,628	**3,507**
Profit attributable to:					
Owners of the Parent	2,556	1,233	2,825	3,499	**3,001**
Non-controlling interests	15	2	1	(93)	**(133)**
Earnings per share					
Basic earnings per $0.25 Ordinary Share	$2.04	$0.98	$2.23	$2.77	**$2.37**
Diluted earnings per $0.25 Ordinary Share	$2.04	$0.98	$2.23	$2.76	**$2.37**
Dividends	$2.80	$2.80	$2.80	$2.80	**$2.80**
Return on revenues					
Operating profit as a percentage of Total Revenue	14.4%	8%	16.7%	21.3%	**16.4%**
Ratio of earnings to fixed charges	9.9	6.1	11.3	8.9	**4.4**

At 31 December	2013 $m	2014 $m	2015 $m	2016 $m	2017 $m
Statement of Financial Position					
Property, plant and equipment, goodwill and intangible assets	31,846	38,541	40,859	46,092	**45,628**
Other investments and non-current receivables	2,513	2,138	1,896	2,070	**2,387**
Deferred tax assets	1,205	1,219	1,294	1,102	**2,189**
Current assets	20,335	16,697	16,007	13,262	**13,150**
Total assets	55,899	58,595	60,056	62,526	**63,354**
Current liabilities	(16,051)	(17,330)	(14,869)	(15,256)	**(16,383)**
Deferred tax liabilities	(2,827)	(1,796)	(2,665)	(3,956)	**(3,995)**
Other non-current liabilities	(13,768)	(19,823)	(24,013)	(26,645)	**(26,334)**
Net assets	23,253	19,646	18,509	16,669	**16,642**
Share capital	315	316	316	316	**317**
Reserves attributable to equity holders of the Company	22,909	19,311	18,174	14,538	**14,643**
Non-controlling interests	29	19	19	1,815	**1,682**
Total equity and reserves	23,253	19,646	18,509	16,669	**16,642**

For the year ended 31 December	2013 $m	2014 $m	2015 $m	2016 $m	2017 $m
Cash flows					
Net cash inflow/(outflow) from:					
Operating activities	7,400	7,058	3,324	4,145	**3,578**
Investing activities	(2,889)	(7,032)	(4,239)	(3,969)	**(2,328)**
Financing activities	(3,047)	(2,705)	878	(1,324)	**(2,936)**
	1,464	(2,679)	(37)	(1,148)	**(1,686)**

For the purpose of computing the ratio of earnings to fixed charges, earnings consist of the income from continuing ordinary activities before taxation of Group companies and income received from companies owned 50% or less, plus fixed charges. Fixed charges consist of interest on all indebtedness, amortisation of debt discount and expense, and that portion of rental expense representative of the interest factor.