

ASTRAZENECA ANNUAL REPORT AND FORM 20-F 2001

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Use of Terms

In this Annual Report and Form 20-F 2001, unless the context otherwise requires, 'AstraZeneca', 'the Group', 'the Company', 'we', 'us' and 'our' refer to AstraZeneca PLC and its consolidated entities.

Cautionary Statement Regarding Forward-Looking Statements

In order to utilise the 'safe harbour' provisions of the US Private Securities Litigation Reform Act 1995, we are providing the following cautionary statement: This Annual Report and Form 20-F 2001 contains certain forward-looking statements about AstraZeneca. Although we believe our expectations are based on reasonable assumptions, any forward-looking statements may be influenced by factors that could cause actual outcomes and results to be materially different from those predicted. We identify the forward-looking statements by using the words 'anticipates', 'believes', 'expects', 'intends' and similar expressions in such statements. These forward-looking statements are subject to numerous risks and uncertainties. Important factors that could

cause actual results to differ materially from those contained in forward-looking statements, certain of which are beyond our control, include, among other things: exchange rate fluctuations, the risk that R&D will not yield new products that achieve commercial success, the impact of competition, price controls and price reductions, the risk of loss or expiration of patents or trade marks, the difficulties of obtaining and maintaining governmental approvals for products, the risk of substantial product liability claims and exposure to environmental liability.

Trade Marks

Product names in italics indicate trade marks owned by AstraZeneca, except as otherwise stated. AstraZeneca, the AstraZeneca logotype and the AstraZeneca symbol are all trade marks owned by AstraZeneca.

Statements of Competitive Position

Except as otherwise stated, market information in this Annual Report and Form 20-F 2001 regarding the position of our business or products relative to

its or their competition is based upon published statistical data for the 12 months ended 30 September 2001 obtained from IMS Health, a leading supplier of statistical data to the pharmaceutical industry. Except as otherwise stated, this market share and industry data from IMS Health has been derived by comparing our sales revenue to competitors' and total market sales revenues for that period.

Statements of Growth Rates

Except as otherwise stated, growth rates in this Annual Report and Form 20-F 2001 are given at constant exchange rates (CER).

AstraZeneca Website

Information on our website, www.astrazeneca.com, does not form part of this document.

Key Achievements

- Sales of \$16.5 billion, up 8%*
- Operating profit of \$4.2 billion, up 6%*
- Earnings per share of \$1.77, up 11%*
- Share buy-back programme extended by an additional \$2 billion
- Progress with range of promising megabrands drives transformation strategy
- *Nexium* achieves full year sales of \$580 million with excellent performance in the US following launch in 2001 – share of new prescriptions in the US PPI market up to 16.3% in December
- Strong growth in respiratory, central nervous system and oncology product ranges
- *Symbicort* achieves rapid market penetration with sales reaching \$83 million as roll-out in Europe continues
- Strong performance for *Seroquel* at \$700 million with 51% sales growth in the US and further launches in Europe and Japan
- First approvals for *Casodex* for additional indication in early prostate cancer
- US FDA grants fast track status to the planned supplemental New Drug Application for *Arimidex* as adjuvant treatment for early breast cancer
- Excellent progress through late-stage development for potential megabrands *Crestor*, *Exanta* and *Iressa*
- R&D portfolio one of the best in the industry, with 86 projects involving 35 new chemical entities
- Commercial capability further strengthened through expanded sales forces in key markets
- Corporate social responsibility policy established to provide framework for consistent and appropriate standards worldwide

*Continuing operations, excluding Agrochemicals and Specialties
Note: all growth rates at constant exchange rates (CER)

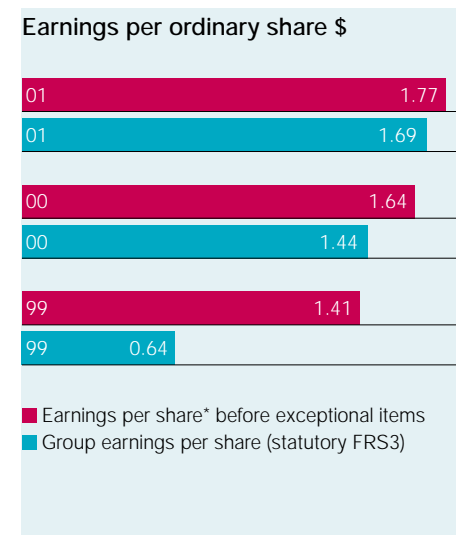
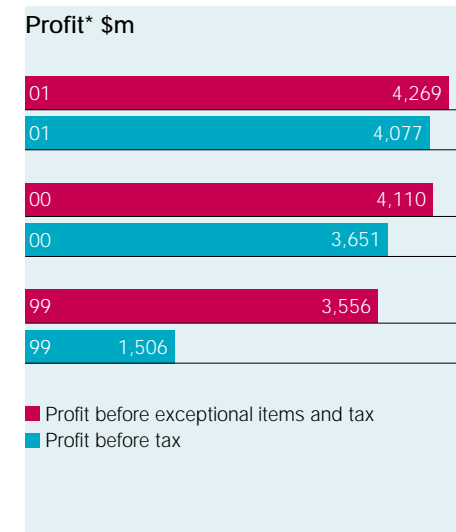
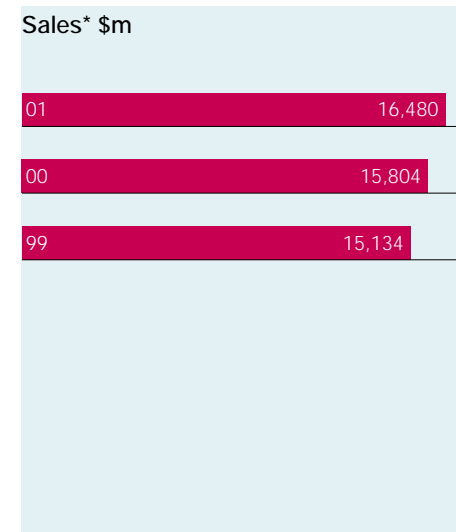
Financial Highlights

Continuing Operations before Exceptional Items

	2001	2000	% growth CER
Sales* \$m	16,480	15,804	+8
Operating profit* \$m	4,156	3,984	+6
Earnings per share* \$	1.77	1.64	+11
Group earnings per share \$ (statutory FRS3)	1.69	1.44	

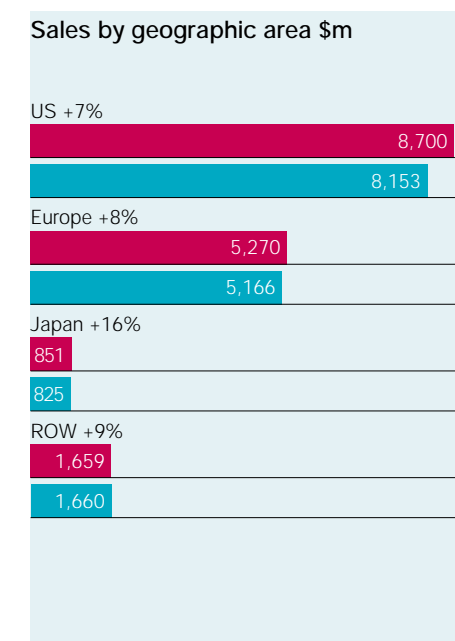
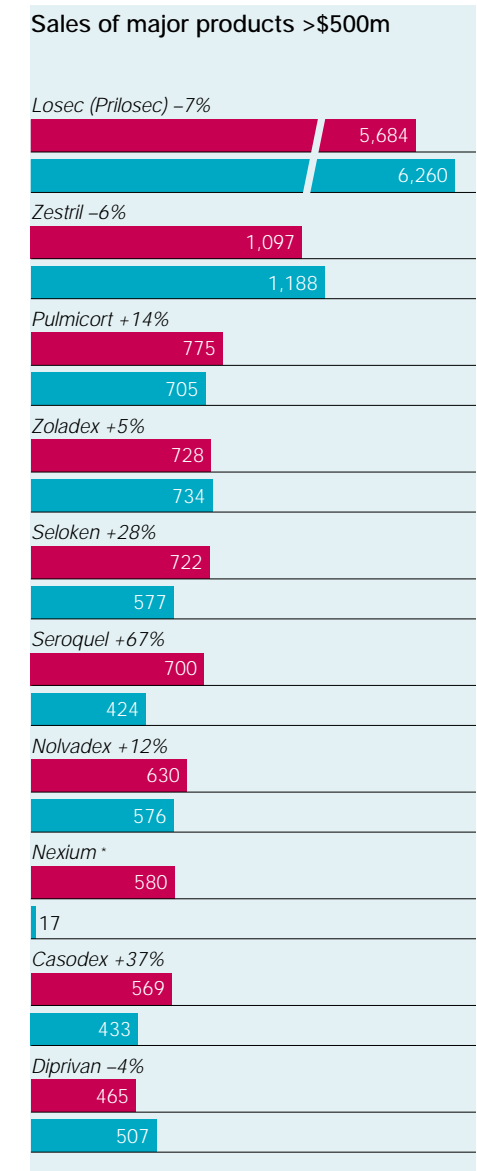
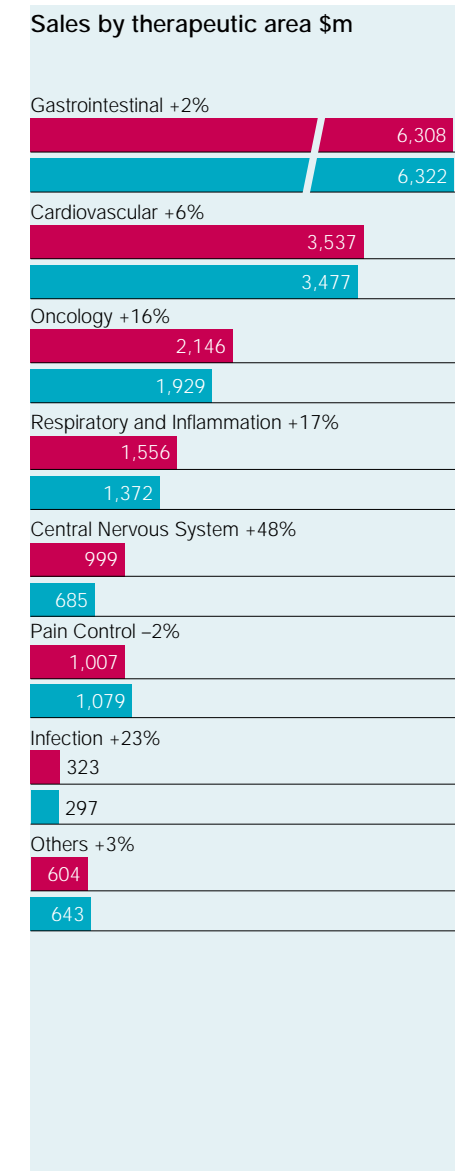
Dividend for 2001

	\$	pence	SEK	Payment date
First interim dividend	0.23	16.1	2.44	05.10.01
Second interim dividend	0.47	33.2	5.01	08.04.02
Total dividend	0.70	49.3	7.45	



	Investment	Investment as % of sales
2001	2,687	16.3
2000	2,620	16.6
1999	2,472	16.3

*Continuing operations, excluding Agrochemicals and Specialties
Note: all growth rates at constant exchange rates (CER)



Key
■ 2001
■ 2000
*as recently launched, growth rates not meaningful

% growth CER
Note: all growth rates at constant exchange rates (CER)

Chairman's Statement

Excellent progress with the development and introduction of a range of important new medicines leaves AstraZeneca well placed to deliver our high potential for future growth.



Excellent progress with the development and introduction of a range of important new medicines leaves AstraZeneca well placed to reduce our reliance on two hugely successful but maturing products in our existing portfolio and to deliver our high potential for future growth. The merger is now well behind us and we have delivered the promised synergy benefits. The focus of the management team, ably led by our Chief Executive, Tom McKillop, is now on growth through the new product launches and through increased market penetration.

Our strong financial results enabled us to increase returns to shareholders through a second interim dividend of \$0.47 (33.2 pence, SEK5.01) per ordinary share to be paid in April 2002, bringing the dividend for the full year to \$0.70 (49.3 pence, SEK7.45), and by significantly increasing the share repurchase programme.

In December 2001, the Company made presentations to financial analysts in both London and New York. These focused on AstraZeneca's approach to ensuring the development of exciting new chemical entities invented in the laboratory into successful innovative medicines meeting patient needs in world markets. Presentations on how our US, European and Japanese businesses are meeting the challenges in these major markets were also made. We also reported progress on our attractive R&D portfolio which now contains 86 projects involving 35 new chemical entities.

The costs of healthcare are a major preoccupation of governments worldwide. This often leads to significant pressures on the prices of medicines. In this climate, it is easy to overlook the contribution of the pharmaceutical industry to improving

health and strengthening the economy. AstraZeneca is playing its part nationally and internationally in putting the industry's case for sound legislation and policies that provide patients with safe and effective medicines, at the same time safeguarding the long term competitiveness of the pharmaceutical industry.

The impact on society of AstraZeneca's activities is a fundamental consideration for us and we aim to set, promote and maintain high standards of corporate social responsibility (CSR). During 2001, we established a CSR policy which is supported by a family of policies and standards. This will be communicated widely across the organisation in 2002 to ensure that we are acting appropriately and consistently in all markets. The Board nominated Dame Bridget Ogilvie to oversee the development of an integrated approach to the adoption of standards of CSR for AstraZeneca and you will read elsewhere in this report that we are already making good progress.

I am particularly proud of the support offered by the Company and its employees in response to the earthquake in India and in the aftermath of the terrorist attacks in the US in September, including the humanitarian aid made available to refugees from Afghanistan during the subsequent military action in that country.

In April 2001, Sir David Barnes retired from the Board after more than 14 years' outstanding service as a Director. Lars Ramqvist will retire from the Board at this year's Annual General Meeting after eight years as a Non-Executive Director. My Board colleagues and I thank them warmly for their contributions to the success of the Company.

We welcome Dr Jane Henney, Senior Scholar at the Association of Academic Health Centers in the US, who joined the Board in September 2001 as a Non-Executive Director. Her experience and expertise in US healthcare matters is already proving invaluable in our discussions.

I acknowledge with gratitude the contribution of my colleagues on the Board, the Senior Executive Team and AstraZeneca people worldwide for their continued contribution to our success.

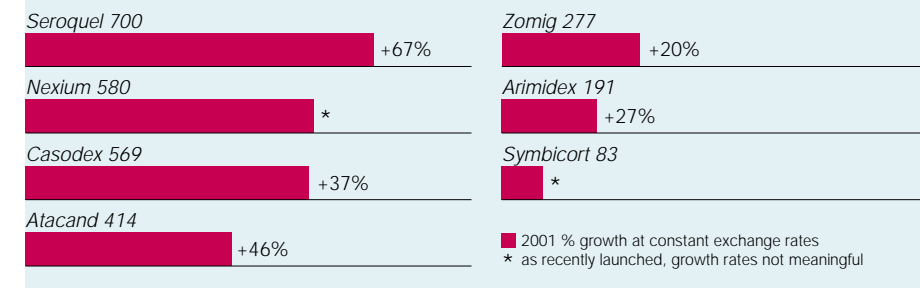
The transformation of AstraZeneca and the drive for improved efficiency will continue in 2002 and I am confident that the collective performance of our employees will continue to deliver long term value.

Percy Barnevik
Chairman

Chief Executive's Review

2001 was a significant year for AstraZeneca as we continued to drive the transformation of our business, building the platform for future growth and creation of enduring shareholder value.

Sales of key growth products \$m



Investment in building our commercial strength in major markets over the last two to three years delivered strong sales growth for both our new and key existing products. Sales growth of 8% in 2001 met our expectations and we delivered operating profit growth of 6%. Earnings per share increased by 11% to \$1.77.

Business highlights of the year included strengthening our position in the US, with the launch and excellent progress of *Nexium*, which finished the year with a 16.3% share of new prescriptions in the US proton pump inhibitor market – making it the most successful anti-secretory product launch ever. In Europe, *Symbicort* for asthma is now launched in 18 countries and has captured more than 10% of the fixed combination asthma market in the majority of these launch countries. In Japan, AstraZeneca is now the second fastest growing major pharmaceutical company with 16% sales growth in 2001.

We are now the purest prescription pharmaceutical company among the major groups. Innovation is critical to our continued success and I am pleased to report that our pipeline – one of the best in the industry – made excellent progress.

Three late stage development products, *Crestor*, *Iressa* and *Exanta*, in addition to the recently launched *Nexium* and *Symbicort* have megabrand potential. These supplement the exciting opportunities presented by further development of other key growth products *Arimidex*, *Atacand*, *Casodex*, *Seroquel* and *Zomig*.

Progress with our new product pipeline included further impressive clinical data for *Crestor*, reinforcing its potential to offer superior effectiveness over currently available statins. First regulatory

submissions were made in 2001 and launches are planned for 2002. During the year, we announced our intention to 'go it alone' with *Crestor* and resources are being focused on realising its full potential without the need for a global partner. Enthusiasm continues to build for *Exanta*, targeted to be the first new oral anti-coagulant agent in 50 years, and its first regulatory submission is planned in Europe in 2003. Regulatory filings for our novel cancer therapy, *Iressa*, began in December 2001.

Mention should also be made of the exciting developments during 2001 with *Casodex* in early prostate cancer and *Arimidex* in the adjuvant setting in breast cancer. Both these products offer significant benefits to patients with earlier stage disease and, together with *Iressa*, are capable of driving AstraZeneca towards our goal of becoming the leading company in oncology. During the year, we terminated development of *Viozan* in chronic obstructive pulmonary disease, when the phase 3 trial results failed to meet target criteria for sustained efficacy and resources were allocated to other priority projects within the portfolio.

Investment to support the flow of products included expansion of R&D facilities at our sites in the UK, Sweden, the US and India and of our sales forces worldwide. New manufacturing plants were brought into operation in Sweden, France, Puerto Rico, the UK and Germany.

No business can succeed without the commitment of its people and AstraZeneca has a workforce of which I am immensely proud. We are determined to continue to attract and retain the best within a performance-based culture that values, supports and rewards team and individual contributions. In support of this aim, we recently announced our employer of choice initiative, more details of which can be found on page 25.

I would like to thank Carl-Gustaf Johansson and Gunnar Christiani, who retired from their positions on the Senior Executive Team in 2001, for their important contributions to AstraZeneca's continued success. I would also like to wish David Brennan (Executive Vice-President, North America) and Tony Bloxham (Executive Vice-President, Human Resources) every success in their new roles.

I expect 2002 to be a demanding but exciting year. The inevitable expiry of product patents requires all pharmaceutical companies to reinvent themselves in line with the patent protection cycle and we are no exception. Backed by our existing portfolio, strong pipeline and new potential megabrands, I believe we are well prepared for the challenges of patent expiries on significant products such as *Losec* and *Zestril*. To add to the challenge, we are transforming our business at a time when the pharmaceutical industry in general faces many changes including new science and technology, cost-containment and increasingly demanding regulatory requirements. Against this background, we achieved a strong performance in 2001 and I am confident that with our clear strategy, powerful portfolio, rich pipeline and talented people, we will manage successfully the challenges of our business transformation and deliver sustained shareholder value.

Tom McKillop
Chief Executive

Strategy

We are committed to creating enduring shareholder value by delivering a flow of innovative medicines which meet the needs of patients and healthcare professionals in important areas of medicine.

As a prescription pharmaceutical company focused on the introduction of new medicines, we are transforming our portfolio from successful but mature brands to a range of exciting new products.

This transformation will involve:

- sustained, focused investment in R&D
- realising the full potential of our established portfolio and high potential pipeline
- retaining and building on our leading positions, notably in the key markets of the US, Japan and Europe
- effective resource allocation and cost control, supported by our strong performance-led culture

This strategy requires the fulfilment of six key business priorities:

First choice for customers

We intend to build on our leading positions in many important areas of medicine by providing new, innovative products and services that meet the medical needs of patients and healthcare professionals and which offer value in the treatment of disease.

We recognise the challenges of cost containment in healthcare and are committed to improving patient choice and access to medicines.

We believe that new global communication channels offer scope for better use and uptake of medicines and we will embrace the opportunities this presents.

Growth through key products

Five new products have the potential to become megabrands, supplementing the growth opportunities of our existing range. Two have been launched in the last 12 months, *Nexium* and *Symbicort*, with strong performances since launch, confirming their sales potential. The other three, *Crestor*, *Exanta* and *Iressa*, are making excellent progress through development.

Growth of our business will be driven by:

- rapid growth of the recently launched high potential products *Nexium* and *Symbicort*
- successful launches worldwide of the high potential products currently in late stage development, including *Crestor*, *Exanta* and *Iressa*
- building on the success of other key growth products, *Arimidex*, *Atacand*, *Casodex*, *Seroquel* and *Zomig*
- active lifecycle management of the product portfolio and delivery of the full sales potential of the established range

Full details of product performance are given in the Operational and Financial Reviews on pages 6–42.

Win in the US

We intend to deliver outstanding performance in the US, the world's largest market for pharmaceuticals, worth \$169 billion and growing at 16% per annum. We achieved a good US sales performance in 2001 of \$8,700 million with a growth rate of 7%.

Special focus is being given to the future growth of the US business as a critical, integrated part of our global organisation. We have enhanced our R&D presence in Boston and restructured and increased the size of our sales force, now the third largest in the US pharmaceutical industry, to maximise the opportunities provided by the flow of new products.

Further details are given on page 19.

Secure the flow of new products

Already a world-leading R&D organisation, we continue to invest in improving the quality and efficiency of our drug discovery process and ensuring a flow of high potential candidates for development as new medicines. We have a strong pipeline with 86 projects, of which 25 are currently in the development for launch phase.

We are well placed to exploit the opportunities in leading-edge science and technology and to capture the benefits of

scale of a large organisation whilst retaining the spirit and innovation of an entrepreneurial company.

We aim to be at the forefront of innovative technology by expanding in genetics and informatics. A network of over 300 collaborations with leading universities and biotechnology companies, in addition to our in-licensing programme, complements our in-house R&D activities.

R&D spend totalled \$2,687 million in 2001 and we are on track to meet the challenging R&D targets that will deliver our strategic objectives.

Further details are given on pages 15–17.

Build the talent base

We recognise that continued success depends on the quality and commitment of our people. We aim to attract and retain the best talent within a performance-based culture which values, supports and rewards team and individual contributions. In 2001 we introduced our employer of choice initiative, which aims to allow the full potential of our people to be realised. It centres around three key areas: work environment, learning and development opportunities and reward.

Further details are given on page 25.

Fast, effective organisation

Our success depends on our ability to respond quickly and effectively to changing business needs. Having successfully completed the process of merger and subsequent integration, we have identified areas for further significant improvement and plans are in preparation to address these.

Attention will focus particularly on:

- improving the speed and clarity of decision taking especially at critical points in the value chain
- organising business support activities to deliver higher quality and more effective service
- leveraging our purchasing power as a global company with external providers.

Key Product Summary

Trade marks (compound name) / Main uses		Sales performance			
Gastrointestinal (GI)					
Losec/Prilosec (omeprazole) proton pump inhibitor (PPI) for acid related diseases (such as reflux oesophagitis)	Nexium (esomeprazole) PPI for acid related diseases (such as reflux oesophagitis)	2001 \$m	2000 \$m	% Growth (CER)	
		<i>Losec</i>	5,684	6,260	-7
		<i>Nexium</i>	580	17	*
Losec MUPS (omeprazole) omeprazole in a tablet formulation		GI Total	6,308	6,322	+2
Cardiovascular (CV)					
Atacand¹ (candesartan cilexetil) angiotensin II antagonist for hypertension	Seloken/Toprol-XL (metoprolol) beta-blocker for hypertension, angina, heart failure and other uses	2001 \$m	2000 \$m	% Growth (CER)	
		<i>Atacand</i>	414	293	+46
		<i>Zestril</i>	1,097	1,188	-6
		<i>Seloken</i>	722	577	+28
		<i>Plendil</i>	471	480	+2
Zestril² (lisinopril) ACE (angiotensin converting enzyme) inhibitor for hypertension, including patients with associated CV disorders	Plendil (felodipine) calcium antagonist for hypertension and angina	CV Total	3,537	3,477	+6
Oncology					
Zoladex (goserelin) LHRH analogue administered as a subcutaneous implant for prostate and pre-menopausal breast cancer, certain benign gynaecological disorders and assisted reproduction	Arimidex (anastrozole) aromatase inhibitor for advanced breast cancer in post-menopausal women	2001 \$m	2000 \$m	% Growth (CER)	
		<i>Zoladex</i>	728	734	+5
		<i>Casodex</i>	569	433	+37
		<i>Arimidex</i>	191	156	+27
		<i>Nolvadex</i>	630	576	+12
Casodex (bicalutamide) anti-androgen for prostate cancer including early prostate cancer	Nolvadex (tamoxifen) anti-oestrogen for all stages of breast cancer treatment	Oncology Total	2,146	1,929	+16
Respiratory and Inflammation					
Pulmicort (budesonide) inhaled anti-inflammatory for control of asthma	Accolate (zafirlukast) oral leukotriene receptor antagonist for control of asthma	2001 \$m	2000 \$m	% Growth (CER)	
		<i>Pulmicort</i>	775	705	+14
		<i>Oxis</i>	127	116	+15
		<i>Symbicort</i>	83	-	*
		<i>Accolate</i>	146	152	-2
		<i>Rhinocort</i>	269	221	+25
Oxis (formoterol) inhaled long-acting bronchodilator for relief of asthma symptoms	Rhinocort (budesonide) topical nasal anti-inflammatory for control of rhinitis	Respiratory Total	1,556	1,372	+17
Symbicort (budesonide/formoterol) inhaled combination of an anti-inflammatory and fast onset long-acting bronchodilator in a single inhaler					
Central Nervous System (CNS)					
Seroquel (quetiapine) atypical anti-psychotic for schizophrenia and other psychotic disorders	Zomig (zolmitriptan) 5HT _{1B/1D} receptor agonist for acute treatment of migraine with or without aura	2001 \$m	2000 \$m	% Growth (CER)	
		<i>Seroquel</i>	700	424	+67
		<i>Zomig</i>	277	237	+20
		CNS Total	999	685	+48
Pain Control					
Diprivan (propofol) intravenous general anaesthetic for induction/maintenance of anaesthesia and sedation of intensive care patients	Xylocaine (lidocaine) local anaesthetic for use in surgery and dentistry	2001 \$m	2000 \$m	% Growth (CER)	
		<i>Diprivan</i>	465	507	-4
		<i>Naropin</i>	62	53	+23
		<i>Xylocaine</i>	212	238	-5
Naropin (ropivacaine) local anaesthetic for surgical anaesthesia and acute pain management		Pain Control Total	1,007	1,079	-2
Infection					
Merrem/Meronem³ (meropenem) ultra broad spectrum injectable antibiotic for serious bacterial infection including meningitis		2001 \$m	2000 \$m	% Growth (CER)	
		<i>Merrem</i>	227	170	+40
		Infection Total	323	297	+23

* as recently launched, growth rates not meaningful

¹ Product under licence from Takeda Chemical Industries Ltd.

² Product under licence from Merck & Co., Inc.

³ Product under licence from Sumitomo Pharmaceuticals Co., Ltd.

Note: all growth rates at constant exchange rates (CER)

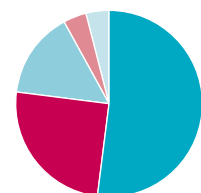
Global Market Overview

Worldwide, the demand for healthcare is growing, driven by demographic changes and improved life expectancy as modern medicine supports an ageing population.

Major Pharmaceutical markets

Value: \$334 billion (+11%)

Figures in brackets show market growth at constant exchange rates (CER)
Source: IMS Health, MAT Q3 2001



- North America \$175bn (+16%)
- Europe \$84bn (+8%)
- Japan \$49bn (+4%)
- Latin America \$13bn (-1%)
- Rest of the World \$13bn (+12%)

The world pharmaceutical market is valued at \$334 billion based on the most recent market data for the year to September 2001. The US remains the largest market, now accounting for 51% of the total followed by Japan (15%), Germany (5%), France (5%), Italy (4%) and the UK (3%).

Globally, 2001 has been a further year of strong growth for the pharmaceutical industry. The average annual growth rate across the 33 countries comprised in the above total is 11%, at constant exchange rates. The range of growth rates from +20% in Greece to -14% in Brazil indicates a year of mixed fortunes in different countries but growth of +16% in the US, +4% in Japan and +8% in Europe underpin the fundamentally positive industry growth. Among emerging markets, Mexico, China and Poland showed continued good growth in 2001, albeit at lower rates compared to 2000.

Growth in 2001 was largely attributable to volume increases of recently launched, highly effective products in the major therapeutic categories of hypolipidaemics, antidiabetes products, anti-anaemics, anti-histamines, anti-epileptics and anti-ulcerants.

Pharmaceutical industry environment

Worldwide, the demand for healthcare is growing, driven by demographic changes and improved life expectancy as modern medicine supports an ageing population. Better informed patients are becoming more involved in decisions about their health and are demanding healthcare products and systems that meet their needs. Developed countries typically commit 7% to 14% of their gross domestic product to healthcare; of this healthcare spend, typically one tenth only relates to prescription medicines. Nonetheless they play an increasingly important part in delivering solutions to healthcare problems with innovative, cost effective ways of treating disease and improving quality of life.

External forces continue to impact the pharmaceutical industry, driving change and offering companies both opportunities and challenges. During 2001 there were significant developments in several important areas, most notably science and technology, cost containment, regulation and online business initiatives.

Further advances in science and technology, especially in molecular biology and bioinformatics, underpin the ability of R&D based pharmaceutical companies to develop new products. Research based companies increasingly focus on proteomics, the study of the function and role of proteins and their relationship to disease, which is expected to further expand the understanding of the science behind disease and so present more opportunities for innovative therapies.

Increasing demand for healthcare raises the challenge of funding such demand for all healthcare systems. Pharmaceuticals are subjected by governments and other organisations which fund healthcare costs, to a wide range of direct and indirect measures which aim to contain those costs. Pricing of drugs has been an issue in the US in 2001 although anticipated legislation for prescription drug benefits for senior citizens has not yet been introduced in the expected timescales.

The issue of access to affordable medicines in developing countries continued its high profile in 2001 with pressure from campaigners on pharmaceutical companies to reduce drug prices and accept compulsory licensing of their products in poor countries. At the World Trade Organisation (WTO) meeting in Doha in November 2001, a declaration on the trade-related aspects of intellectual property rights (TRIPS) agreement balanced the public health interests of WTO members against the importance of intellectual property protection for the development of new medicines. The declaration also recognised that intellectual

property is one part of a wider national and international need to address the issues of access to medicines and health in the developing world.

The regulatory environment is particularly stringent for pharmaceuticals, with approval to market products only being granted after satisfying relevant authorities with regard to safety, quality and efficacy. Manufacturing sites are inspected and approved before product launch in some countries.

While regulatory requirements are becoming even more demanding, there has been further progress towards international harmonisation of marketing approvals with agreement reached to introduce a common technical document for the US, Europe and Japan. This should facilitate global registrations and help new medicines reach patients worldwide more quickly.

Electronic techniques are becoming established in the pharmaceutical industry across the value chain delivering benefits such as speed of access to information, improved cost effective systems and the ability to personalise services. Many physicians worldwide utilise e-learning, and some, mainly in the US at present, are involved in e-detailing, electronic patient records and e-prescribing. The industry increasingly uses a number of innovative and creative techniques including e-procurement, e-clinical trial recruitment and administration, e-marketing and web sites for patient information.

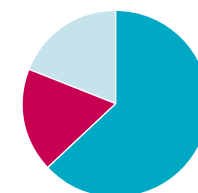
Gastrointestinal (GI)

We aim to maintain our number one position in gastroenterology through continued, successful launches of *Nexium* worldwide and high quality innovation and productivity in the research, development and commercialisation of new approaches to address unmet medical needs.

World market 2001: Treatments for gastric acid related diseases

Value: \$21 billion (+8%)

Figures in brackets show market growth at constant exchange rates (CER)
Source: IMS Health, MAT Q3 2001



- Proton pump inhibitors 63% (+21%)
- H2-antagonists 18% (-6%)
- Others 19% (-11%)

In the western world, some 40% of the adult population experience heartburn, the principal symptom of gastro-oesophageal reflux disease (GERD) and up to half of these patients also have oesophagitis. Between 5% and 10% of the world's population suffers at least once from peptic ulcer disease. Infection with the bacterium *Helicobacter pylori* (H.pylori) is the major cause of peptic ulcer disease and is a risk factor for gastric cancer.

AstraZeneca is the world leader in the treatment of gastrointestinal diseases, in particular acid related disorders. Our key products include *Losec*, the world's best-selling gastrointestinal product and *Nexium*, which offers significant clinical improvements over *Losec*. We are committed to advancing the treatment and prevention of GERD, peptic ulcer disease, dyspepsia, inflammatory bowel disease and irritable bowel syndrome.

Key products

Losec (Prilosec), the first proton pump inhibitor (PPI), set a new global standard in short and long term treatment of acid related diseases in the 1980s and 1990s and today is the world's largest-selling gastrointestinal product. Patients have benefited from over 600 million treatments with *Losec* since its launch in 1988. The product's global and US share of the PPI market by sales value, is 47% and 48% respectively. *Losec MUPS*, a tablet formulation, which offers increased convenience, flexibility and predictability over the original *Losec* capsules, has been launched in over 50 markets.

Patent protection for omeprazole, the active ingredient in *Losec*, has expired. In a number of countries, including some major markets, patent term extensions or supplementary protection certificates have been granted for the active ingredient. In December, a patent infringement trial commenced in the US District Court for New York involving four groups of companies who wish to introduce generic

omeprazole and who we believe have infringed various of our patents including those covering the complex processes for formulation of omeprazole. Further information about the status of *Losec* patents and patent litigation is on page 92.

Nexium clinical studies involving 40,000 patients in more than 30 countries have shown that *Nexium* is the first PPI to offer significant clinical improvements over *Losec* and its main competitor, lansoprazole, in terms of acid control and clinical efficacy. AstraZeneca is committed to establishing a range of new clinical use areas for *Nexium* and to further strengthen the scope of its current areas of use.

Nexium offers more effective acid inhibition than all other PPIs and, in the treatment of reflux oesophagitis, provides healing and symptom relief in more patients and in a shorter period of time than *Losec* and lansoprazole. It is an effective, long term therapy for GERD patients, with or without oesophagitis. For the treatment of active duodenal ulcer disease, seven day *Nexium* triple therapy (in combination with two antibiotics for the eradication of H.pylori) heals most patients without the need for follow up anti-secretory monotherapy.

We expect *Nexium* to establish a new, improved treatment standard for the PPI class.

Following its first launch in Sweden in August 2000, *Nexium* was launched in 32 markets during 2001 including the US, Canada and key European countries. We plan further *Nexium* launches in 2002, including Belgium, France and Italy. *Nexium* has been well received by patients and physicians alike and early sales are favourable with a strong sales performance particularly in the US. *Nexium* is used to treat a wide range of patients, including both the newly diagnosed and patients switched from other therapies such as *Losec*, other PPIs and H2 receptor antagonists.

Entocort is a locally acting corticosteroid for the treatment of inflammatory bowel disease with better tolerability than other corticosteroids and greater efficacy than aminosallyclic acid medicines. The product was approved and launched in the US (as *Entocort EC*) in late 2001.

R&D portfolio

Significant R&D effort is focused on the development of novel approaches to treat GERD, H.pylori infection, peptic ulcer disease, dyspepsia, inflammatory bowel disease and irritable bowel syndrome.

AR-H047108 reversible acid pump inhibitor is based on a new concept of acid inhibition which provides a faster and more effective inhibition of gastric acid secretion than *Losec*.

AZD3355 reflux inhibitor is a new approach to the treatment of GERD in terms of improving the function of the lower oesophageal sphincter (LOS) by action on peripheral receptors responsible for opening and closure of this sphincter. This leads to a reduction of the abnormal, transient LOS relaxations typically associated with GERD.

Rofleponide is an oral, locally acting corticosteroid in development for the treatment of inflammatory bowel disease. It has a potent action at the site of inflammation and low systemic availability suggesting the potential for decreased risk of cortisone-like side effects compared with current corticosteroids in clinical use.

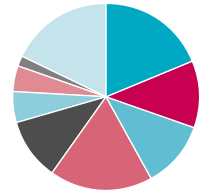
Cardiovascular (CV)

AstraZeneca is a world leader in cardiovascular medicines, with over 40 years' experience and a strong portfolio of products, led by *Atacand*, *Zestril* and *Seloken ZOK*. High potential new therapies in development include *Crestor*, a highly effective new statin for lipid lowering and *Exanta*, targeted to be the first new oral anti-coagulant agent in 50 years.

World market 2001: Cardiovascular treatments

Value: \$79 billion (+11%)

Figures in brackets show market growth at constant exchange rates (CER)
Source: IMS Health, MAT Q3 2001



- Statins 21% (+21%)
- Drugs for diabetes 13% (+22%)
- ACE inhibitors 11% (+4%)
- Anti-thrombotics 10% (+17%)
- Calcium antagonists 12% (+2%)
- Angiotensin II antagonists 6% (+44%)
- Beta-blockers 5% (+5%)
- Nitrates 2% (-7%)
- Others 20% (+2%)

CV diseases are the greatest risk to life for most adults and account for 17 million deaths globally each year. Future healthcare trends are likely to focus increasingly on the underlying causes of disease, thereby enabling prevention of both disease and its associated metabolic disorders.

The CV area, including the metabolic risk factors for cardiovascular disease – type 2 diabetes/insulin resistance syndrome (IRS), obesity and thrombosis – is the single largest therapeutic area in the global healthcare market.

We aim to build on our strong position in this important area. Strategic priorities in the short to medium term are to focus on the growth segments of hypertension, dyslipidemia, thrombosis and type 2 diabetes. Our products for growth in these areas include *Seloken ZOK*, *Atacand*, *Crestor*, *Exanta* and AZ242 for type 2 diabetes/IRS.

Key products

Atacand is an angiotensin II antagonist for the first line treatment of hypertension. A combination product with hydrochlorothiazide has been introduced in most major markets and shows a strong market acceptance. The *Atacand* family of products competes in the fastest growth sector of the global hypertension market (angiotensin II antagonists – plain and combinations) and has achieved a world market share of 7.9% (8.2% in the US). Further development includes major studies in hypertension and heart failure (SCOPE and CHARM) and retinopathy in diabetic patients (DIRECT).

Zestril, the most prescribed angiotensin converting enzyme (ACE) inhibitor in the world, is used for the treatment of a wide range of CV diseases, including hypertension. The *Zestril* family has a 16.9% share of the ACE inhibitor sector (23.9% in the US). Although sales worldwide have declined, US volume

growth has continued despite the introduction of generic enalapril in August 2000. Patent protection for *Zestril* in the US expired in December 2001 but a further six months' marketing exclusivity has been granted by the FDA following our response to its request for paediatric data.

Seloken ZOK (Toprol-XL), a once daily tablet for 24 hour control of blood pressure and for use in heart failure, is the world's leading product in the beta-blocker (plain and combinations) class with a market share of 15.7%. We expect sales growth to continue, backed by extensive clinical programmes that support evidence-based prescribing.

R&D portfolio

R&D is aimed at broadening the cardiovascular portfolio into the areas of thromboembolism, dyslipidaemia, type 2 diabetes/IRS, atrial fibrillation and vascular disease prevention.

Crestor is a new statin currently in late stage development. Clinical trials have shown it to be highly effective in the treatment of patients with lipid disorders and it has the potential to be superior to currently available statins. Substantial clinical evidence has led statins to be regarded as first line therapy for lipid disorders and the statin market, currently worth \$16.5 billion per annum, is one of the largest and most rapidly growing areas of the pharmaceutical market. Clinical studies show that *Crestor* offers significantly greater LDL cholesterol (low density lipoprotein) reduction than other statins, has beneficial effects on HDL cholesterol (high density lipoprotein) and triglyceride levels and may enable more patients to reach the target cholesterol levels recommended in the European and US guidelines for treatment of lipid disorders. We filed regulatory submissions for *Crestor* in 2001 in the US and Europe and the submission in Japan is planned for the first quarter of 2002. We plan first launches for the second half of 2002.

We believe that the withdrawal of Bayer's cerivastatin is due to product specific issues that will not affect the prospect of this class of products as a whole.

Exanta, targeted to be the first new oral anti-coagulant agent in 50 years, is a novel oral direct thrombin inhibitor used to prevent and treat the abnormal formation of blood clots (thrombosis). It has shown to be effective and well tolerated in clinical studies. *Exanta* has a number of potential practical benefits including oral administration, rapid onset of action and lack of drug/food interactions with no need for routine blood coagulation monitoring. Development studies in the major chronic indication, prevention of stroke in patients with atrial fibrillation, are ongoing and the first regulatory submission in Europe (prophylaxis of thrombosis in hip and knee surgery) is planned in 2002. The first regulatory submissions in the US are planned in 2003.

AZ242 is a treatment for insulin resistance-related glucose and lipid abnormalities associated with type 2 diabetes and IRS. Early clinical studies indicate that it has a promising pharmacokinetic profile, shows a dose-dependent effect on lipids, glucose and insulin and is well tolerated.

AZD7545, a pyruvate dehydrogenase (PDK) inhibitor (an oral antidiabetic), is in proof of concept phase.

Our further research in the area of thrombosis aims to deliver a once-daily oral anti-platelet therapy (**AZD6140**). The **ZD4927** proof of concept (Factor-Xa-anticoagulant) development has been discontinued for failure to achieve the desired profile.

Research in atrial fibrillation includes **AZD7009/ARDA₂**, an atrial repolarisation delaying agent which has a more favourable profile than the previous atrial repolarisation delaying agent, **AR-H050642**, development of which has been discontinued.

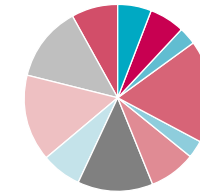
Oncology

Significant growth of key products such as *Casodex* and *Arimidex* and the planned introduction of a range of novel approaches, including *Faslodex* and *Iressa* continue to drive our aim of becoming the world leader in oncology.

World market 2001: Anti-cancer treatments

Value: \$12 billion (+11%)

Figures in brackets show market growth at constant exchange rates (CER)
Source: IMS Health, MAT Q3 2001



- Anti-androgens 6% (+13%)
- Anti-oestrogens 6% (+8%)
- Aromatase inhibitors 3% (+41%)
- LHRH analogues 18% (+9%)
- Other hormones 3% (+15%)
- Platinum agents 8% (+14%)
- Taxanes 13% (+5%)
- Topoisomerase inhibitors 7% (+26%)
- Anti-metabolites 15% (+17%)
- Other cytotoxics 13% (+16%)
- Novels/monoclonal antibodies 8% (+75%)

Cancer is a devastating disease, predicted to be the leading cause of death in the US by 2005. Currently over 12 million new cases are diagnosed each year worldwide. Advances in cancer treatment have significantly improved outcomes for some tumours, notably breast and prostate, but overall survival prognosis remains poor.

We continue to apply innovative research, development and commercial excellence in oncology. We are a world leader in breast cancer treatments with *Nolvadex*, *Zoladex* and *Arimidex* and in prostate cancer with *Casodex* and *Zoladex*. Our research is focused on developing new agents and approaches to treating a range of cancers.

Key products

Casodex is the world's leading anti-androgen therapy for the treatment of advanced prostate cancer with a global market share in excess of 50%. *Casodex* 150mg has been successfully launched in nine markets including the UK and Sweden and is the first monotherapy treatment that represents an alternative to castration by offering patients with prostate cancer an improved quality of life. Submissions for regulatory approvals for *Casodex* in the treatment of early prostate cancer began in Europe in 2001 and approval has already been given in a number of these markets. A submission in the US was made in December 2001.

Arimidex is the first aromatase inhibitor to demonstrate a survival advantage over both megestrol acetate and tamoxifen in the treatment of advanced post-menopausal breast cancer. It is the world's leading aromatase inhibitor, with a global market share in excess of 50%. It was launched in Japan in February 2001.

Arimidex has now been registered for the broader indication of first-line advanced breast cancer. The ATAC (*Arimidex*, Tamoxifen, Alone or in Combination) study, published December 2001 showed that

Arimidex is significantly more effective in prolonging disease-free survival and has important tolerability benefits compared with the current gold standard, tamoxifen, when given as an adjuvant treatment in postmenopausal women with early breast cancer. This is the first time in 20 years that the established benefits of tamoxifen in early breast cancer have been surpassed by another treatment. The US FDA has granted fast track status for the licence application for this use. Paediatric trials of *Arimidex* will start in 2002.

Nolvadex is the world's most commonly prescribed breast cancer therapy and the first medication approved in the US for reducing the incidence of breast cancer in women at high risk of developing the disease. Trials for paediatric use of *Nolvadex* are ongoing.

Zoladex is the world's second largest selling LHRH (luteinising-hormone releasing hormone) analogue for the treatment of prostate cancer, breast cancer and gynaecological disorders. In 2001 it was approved in 10 countries for the treatment of early stage pre-menopausal breast cancer, as an alternative to and/or in addition to chemotherapy. It offers the efficacy of the cytotoxics but with improved patient tolerability. In prostate cancer, *Zoladex* in the adjuvant setting is the only LHRH analogue shown to improve overall survival following radical prostatectomy or radiotherapy. *Zoladex* was approved in Japan for the treatment of prostate cancer in January 2002.

Tomudex, the first of AstraZeneca's cytotoxic agents, is indicated as monotherapy for the treatment of advanced colorectal cancer.

R&D portfolio

R&D is focused on the development of endocrine (hormonal) and cytotoxic agents, where breakthroughs in drug design have fuelled the development

of a new generation of drugs and novel approaches across a wide range of cancers, which include targeting tumour vasculature to control the tumour growth, invasion and spread.

Faslodex is the first of a new class of oestrogen receptor down regulators. Early studies have shown that, as a once-monthly injection, it is a well tolerated and effective treatment for advanced breast cancer. We have filed regulatory submissions for the approval of *Faslodex* in the treatment of patients who have received prior endocrine therapy for advanced breast cancer in the US and Canada.

Iressa is a novel anti-cancer agent which acts to block signals for cancer cell growth and survival. Early studies have shown encouraging anti-tumour activity, or disease stabilisation in non-small cell lung cancer. Clinical trials with *Iressa* as monotherapy confirm these exciting results in advanced non-small cell lung cancer and regulatory filings began in December 2001. Further studies in combination with cytotoxic regimens are due to report in 2002. *Iressa* is also being investigated in hormone-resistant prostate cancer, breast cancer and gastric cancer.

ZD9331, a specific and direct acting anti-folate, is currently in the concept testing phase.

ZD6474 is a novel, orally active inhibitor of new blood vessel formation in tumours which is expected to control the growth or spread of cancer cells.

ZD6126 is a novel, vascular targeting agent that binds to tubulin and disrupts the tumour blood vessels, thus leading to the death of the tumour. ZD6126 entered early clinical studies in 2001.

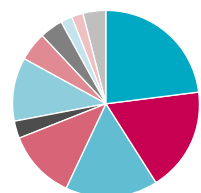
We have discontinued our development of **ZD0473** and returned all rights to Anormed after clinical studies indicated that it failed to meet our target profile.

Respiratory and Inflammation

We aim to build on our leading position in the treatment of asthma through growth of key products, particularly *Symbicort*. Plans to strengthen our position in the chronic obstructive pulmonary disease (COPD) market include new indications for *Symbicort* and *Oxis* and the successful introduction of new products currently in the pipeline.

World market 2001: Respiratory and Inflammation treatments

Value: \$27 billion (+13%)



Figures in brackets show market growth at constant exchange rates (CER)
Source: IMS Health, MAT Q3 2001

- Systemic anti-histamines 23% (+21%)
- Nasal products 18% (+11%)
- Cough and cold preparations 16% (+1%)
- Corticosteroids 12% (+9%)
- Fixed combinations of corticosteroids and beta-agonists 3% (+293%)
- Beta-agonists 11% (+9%)
- Anti-leukotrienes 5% (+41%)
- Anti-cholinergic (+beta-agonist combinations) 4% (+7%)
- Non-steroidal anti-inflammatories 2% (-18%)
- Xanthines 2% (-7%)
- Others 4%

The World Health Organisation estimates that 100 million people worldwide suffer from asthma and that COPD is the fourth greatest cause of death globally.

We market a wide range of products for the treatment of respiratory diseases such as asthma (*Symbicort*, *Pulmicort*, *Oxis* and *Accolate*) and rhinitis (*Rhinocort*). Our research also focuses on developing other therapies for the inflammatory diseases of the respiratory and musculo-skeletal system, such as COPD and rheumatoid arthritis.

Key products

Symbicort is a new, innovative asthma treatment that offers adjustable dosing which enables doctors to tailor a patient's treatment of this variable disease with a single inhaler. It is a combination of the corticosteroid, budesonide and the fast onset, long-acting bronchodilator, formoterol, in the *Turbuhaler* dry powder inhaler.

Symbicort Turbuhaler is approved in 37 countries and launched in 23. Early sales performance has been very encouraging, achieving a 17.6% share of the rapidly growing fixed combination market¹. Further launches are planned in 2002.

Symbicort Phase 3 development will start in the US shortly. Further developments of *Symbicort* include use in patients with COPD and presentation in a pressurised metered dose inhaler.

Pulmicort is a corticosteroid anti-inflammatory inhalation drug that helps prevent symptoms and improves the control of asthma. *Pulmicort* remains one of the world's leading asthma medicines and is available in several forms: *Turbuhaler* inhaler device, pressurised metered dose inhaler and the *Respules* suspension for the treatment of children. The START study is a five year global trial

involving 31 countries and more than 6,000 patients, with the objective of evaluating whether early intervention with inhaled glucocorticosteroid will affect the evolution of newly diagnosed asthma. This study may confirm the benefits of *Pulmicort* in the early treatment of asthma in adults and children.

Pulmicort Respules, the first and only nebulised corticosteroid in the US for children as young as 12 months exceeded one million prescriptions in December 2001 (since its launch in October 2000) and currently accounts for 27% of the inhaled corticosteroid prescriptions written in 2001 by paediatricians.

Oxis is a beta-agonist asthma therapy with a unique fast onset and long-acting clinical effect for the relief of asthma symptoms when corticosteroid treatment is not adequate. It is now approved in Europe for additional 'as needed' therapy for patients already taking it as part of their regular maintenance therapy. This additional indication has enabled *Oxis* to improve its share of the combined short and long-acting beta-agonist market. During 2001, the largest ever asthma clinical study, RELIEF, confirmed the benefits of using *Oxis* in the treatment of asthma.

Accolate, an oral leukotriene receptor antagonist for the treatment of asthma and already available in most markets, was launched in Japan in February 2001.

Rhinocort is a nasal steroid treatment for allergic rhinitis (hay fever), perennial rhinitis and nasal polyps. It combines powerful efficacy with rapid onset of action and minimal side effects and is available as a once-daily treatment in the *Aqua*, pressurised metered dose inhaler and *Turbuhaler* forms. US sales of *Rhinocort Aqua* in 2001 showed strong growth and a 7% share of the competitive rhinitis nasal steroid market.

R&D portfolio

R&D is focused on the symptom control and disease modification of asthma, COPD, rhinitis, rheumatoid arthritis and other inflammatory conditions.

D5522 is an intranasal steroid in concept testing development for rhinitis, principally targeted at the US market. Regulatory submissions are planned in 2004.

Other compounds currently in the concept testing stage include **ZD4407**, a 5-lipoxygenase inhibitor for respiratory diseases, **ZD2315**, **AZD7140**, **AZD8309** and **AZD9056** which have novel mechanisms of action and are targeted at rheumatoid arthritis.

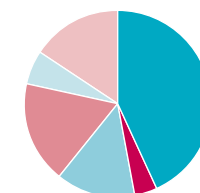
During 2001, we discontinued the development of **Viozan** for the treatment of COPD after the promising efficacy of the compound in early clinical trials was not sustained in later trials. At the same time, in the light of the *Viozan* trial results, we discontinued the development of **AR-C89855**, a compound with a similar mode of action to *Viozan*.

Central Nervous System (CNS)

We continue to make significant investment in the treatment of major disorders of the central nervous system and market *Seroquel* for schizophrenia and *Zomig* for migraine. Our R&D covers a range of CNS areas and focuses on developing effective, value added therapies that address unmet medical needs.

World market 2001: CNS treatments

Value: \$40 billion (+18%)



Figures in brackets show market growth at constant exchange rates (CER)
Source: IMS Health, MAT Q3 2001¹

- Anti-depressants and anxiety 44% (+15%)
- Anti-Parkinson's 4% (+10%)
- Anti-epileptics 14% (+23%)
- Anti-psychotics 18% (+28%)
- Anti-migraine 6% (+12%)
- Others 16% (+19%)

Disorders of the central nervous system are characterised by severe and debilitating symptoms. They affect a large number of people worldwide – the World Health Organisation reports that one in every four people will be affected by mental disorder at some stage of life and 24 million suffer from schizophrenia. Increased knowledge of the disease areas and new product launches have led to rapid growth in the CNS market (18% increase in 2001) and we expect this growth to continue as novel treatments are introduced.

We made significant progress in 2001 in our aim to grow as a major force in the CNS area, with strong sales growth for our key products, further product launches and new collaborations with academic and specialist companies which strengthen our R&D effort. AstraZeneca now ranks number 10 among the global CNS companies and is the fastest growing major pharmaceutical company in this sector.

Key products

Seroquel is an atypical anti-psychotic for the treatment of schizophrenia. With strong sales in the US, it now commands a 16% share of new prescriptions in the US anti-psychotic market². Launches in Europe and Japan (where it is sold under licence by Fujisawa) took place on schedule in 2001 and sales performances have been strong and in line with our predictions.

Seroquel has been proven to be effective against the positive and negative symptoms of schizophrenia with an onset of action within one week. Studies support a positive effect on mood, hostility and aggression. It offers the efficacy of the newer atypicals but with unique patient tolerability, particularly the low profile of extrapyramidal side effects. Further developments are planned to show the full

spectrum of clinical benefit in the elderly population and in those suffering from mania and bipolar disorder.

Zomig is a novel treatment for acute migraine that provides rapid relief of symptoms and is effective when taken at all stages of an attack. It leads the class of migraine therapies known as second-generation triptans and has a 14.9% and 12.1% share of the global and US triptan markets respectively.

Zomig was one of the first oral triptans to be launched in Japan (August 2001) with positive feedback from clinicians leading to an early uplift in sales. *Zomig Rapimelt* is on track for approval in Japan and has been launched in all other major markets. Overall sales have been boosted by the *Zomig Rapimelt* presentation which offers patients a convenient, orange flavoured melt-in-the-mouth tablet. *Zomig Nasal Spray* is another important development which has shown impressive clinical results and offers patients rapid relief. Approvals in the major markets are expected in late 2002.

R&D portfolio

We are committed to developing new products which meet patient needs in both neurological and psychiatric disease. Our wide ranging R&D pipeline includes approaches to the treatment of acute stroke, overactive bladder and depression/anxiety.

Two important collaborations were secured in 2001 which strengthen our neuroscience research effort: with Shanghai Jiaotong University, to study the genetic basis of schizophrenia; and with NPS Pharmaceuticals, which focuses on CNS diseases mediated by the metabotropic glutamate receptors. These are a family of eight currently known receptors, each of which play a role in the mediation of nerve signalling processes and which may

represent key drug targets relieving symptoms in neurological and psychiatric conditions.

Novel approaches for the treatment of depression and anxiety disorders aim to address unmet medical needs such as quick onset of action. Ongoing development projects include two serotonin antagonists selective for the 1a and 1b receptor subtypes.

NXY-059 is a therapy in development for acute ischaemic stroke. Early pre-clinical studies have demonstrated protection of brain neurones and in concept testing studies, NXY-059 has been well tolerated.

Early development activities for the treatment of overactive bladder include potassium channel activation (**ZD0947**) and neurokinin antagonism (**AZD5106**), both novel approaches in this area.

Development of remacemide was discontinued during 2001 after failing to meet target criteria.

¹IMS Health November 2001

²Percentages rounded up to nearest whole number
³IMS Health December 2001 (month)

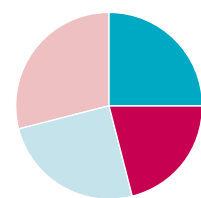
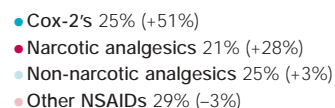
Pain Control

We aim to become a major force in pain control by building on our world leading position in anaesthesia and by introducing new products for the management of pain – the most common reason for seeking medical care.

World market 2001: Analgesics

Value: \$22 billion (+15%)

Figures in brackets show market growth at constant exchange rates (CER)
Source: IMS Health, MAT Q3 2001



Anaesthetics are necessary for surgical procedures in hospitals, clinics and day-care surgeries. Current trends include increased use of intravenous anaesthetics for intensive care sedation and of local anaesthesia for post-operative pain management. In the western world, up to 46% of adults suffer from chronic pain. It is an area where there is a high level of unmet medical needs, such as effectiveness and reduced side effects, which affect quality of life for sufferers as well as putting pressure on healthcare systems.

We are a world leader in anaesthesia, with over 50 years' experience and a strong record of innovation and excellence. Key products include *Diprivan*, *Naropin* and *Xylocaine*. Our plans to build a leading position in pain control include maintaining *Diprivan* sales and increasing sales of *Naropin*. R&D is focused on developing therapies for nociceptive pain (caused by tissue damage) and neuropathic pain (caused by nerve damage).

Key products

Diprivan, the world's largest selling general anaesthetic, is used in the induction and maintenance of anaesthesia and for intensive care sedation. Despite continued generic competition, *Diprivan* has maintained a 26% share of the global general anaesthetic market. In the US, *Diprivan* is maintaining a 23% share of the general anaesthetic market with 57% of total propofol sales. In Japan, sales continued to grow in anaesthesia and sedation and *Diprivan* has gained a 33% market share of the general anaesthetic market. The improved microbial resistant formulation, *Diprivan EDTA*, is approved in the majority of markets and accounts for 85% of total *Diprivan* sales.

Naropin is a long-acting local anaesthetic with improved safety and mobility profile compared with bupivacaine. We filed regulatory submissions for intra-articular, spinal and continuous peripheral nerve block uses in 2001.

Xylocaine continues to be the world's most widely used local anaesthetic, after 50 years on the market.

R&D portfolio

We aim to develop our pain control portfolio, exploiting new mechanisms with novel approaches that are strongly linked to disease processes in key indications. Our pipeline includes projects addressing mechanisms such as delta agonists, G-protein coupled receptors (GPCRs) and novel ion channel blockers, all aimed at delivering first-in-class therapies.

AZD4282 (oral glycine) is an N-methyl-D-aspartate (NMDA) antagonist under development as a treatment of neuropathic pain. It is an antagonist at the glycine site associated with the NMDA receptor complex. Binding to the glycine site is expected to avoid the adverse CNS effects produced by NMDA channel blockers.

AZD3582, a Cox inhibiting nitric oxide donator (CINOD) represents a novel approach to the treatment of acute and chronic nociceptive painful conditions such as post-operative pain and arthritic diseases. The rationale for AZD3582 is to retain both Cox-1 and Cox-2 inhibition for full analgesic and anti-inflammatory effect and to couple a protective nitric oxide (NO) group to the molecule. NO is thought to play a major role in maintaining mucosal integrity in the stomach and other organs, thereby greatly reducing the gastro-intestinal and other damage from non-steroidal anti-inflammatory drugs (NSAID).

The LTA development programme was discontinued in 2001 for failure to meet target criteria and the LEF project was transferred back to Shire as we reconsidered our priorities in portfolio development.

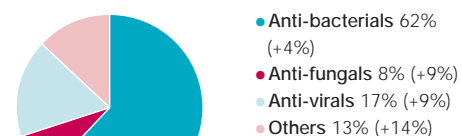
In 2001 we sold our dental range of local anaesthetics to Dentsply International, Inc.

Infection

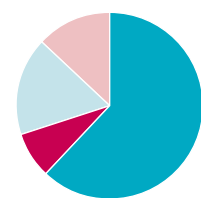
Our experience in infectious diseases includes *Merrem*, for serious infections. R&D focuses on novel approaches for treating microbial diseases.

World market 2001: Anti-infectives

Value: \$46 billion (+7%)



Source: AstraZeneca estimates based on IMS Health data, MAT Q3 2001



We aim to build a franchise in the treatment of infectious diseases, which cause more than 13 million deaths each year, by increasing sales of *Merrem* and the successful introduction of AZD2563, a promising new antibiotic.

Key product

Merrem (Meronom) is an intravenous carbapenem antibiotic for the treatment of serious infections. World demand remains high due to escalating bacterial resistance and the increase in serious infections. In the US, we filed a regulatory submission to secure a hospital-acquired pneumonia indication in 2001. Clinical studies are in place to support a future submission aimed at securing a skin and skin structure infection indication in 2003.

R&D portfolio

R&D is focused on developing products with new modes of action that combat microbial disease.

AZD2563 is a member of the new class of antibiotic, the oxazolidinones, which have a novel mode of action and clinically proven activity against Gram-positive bacteria resistant to most currently available treatments. It is currently in concept testing as an intravenous and oral agent.

During 2001, we recruited further new staff to our research facility in Boston, US. This creates a dedicated infection discovery team of over 100 scientists focused on the search for new antibacterial and antifungal agents using both traditional and genomic based technologies.

We also announced a \$10 million capital investment in new laboratories at our research facility in Bangalore, India. Work will focus on finding a new treatment for tuberculosis, an infectious disease that is newly diagnosed in approximately two million people every year in India and over eight million people worldwide.

Research and Development (R&D)

During 2001 we continued to invest in our global R&D activities to enhance further AstraZeneca's ability to deliver a flow of new products that meet real medical needs.

In R&D we employ over 10,000 people at nine major sites in five countries and in 2001, invested \$2,687 million.

Organisation principles

AstraZeneca R&D remains a uniquely integrated, project driven organisation. It is therapeutic area led, to enable strong medical and commercial focus throughout the product discovery and development process. Scientific, medical, technical and ethical input and control is provided by large, multi-skilled Discovery and Development organisations, supported by an R&D Operations function which provides services such as site management, integrated IS/IT services and rationalised purchasing. This approach offers a number of significant advantages – strong commercial focus, independent best practice in terms of science and technology and efficient use of resources in a multi-site, global organisation. It has contributed significantly to the quality of the product pipeline and the successful recent progress of a range of major products.

R&D targets and achievements

We remain focused on meeting our R&D performance targets – doubling the value of the portfolio by increasing candidate drug (CD) output, doubling the development project success rate to 20% and delivering three or more medically important, commercially successful products per year by 2005. The interim targets for 2001 have been met or exceeded in most cases.

In addition to developing the organisation to meet these challenging targets, R&D has continued to progress products into the commercial phase during the year. These include *Crestor* for lipid lowering, in licenced from Shionogi, *Faslodex* for advanced breast cancer, *Casodex* for early prostate cancer and *Iressa* for lung cancer as well as a range of important new indications for existing, established products.

Discovery

Our Discovery organisation consists of over 3,000 highly skilled employees working in each of our seven different research areas. The scientific groups are spread over a number of research sites in Sweden, the UK, the US, Canada and India but are organised so as to gain critical mass efficiencies and exchange learning and best practice.

During the year, Discovery delivered 10

CDs across all research areas as planned. In addition to meeting these targets, other achievements in 2001 have included the implementation of a global knowledge exchange project, with the systems in place to maximise the benefit from this exercise using the latest communication and informatics technologies. This builds upon the knowledge transfer already provided by our established global enabling science and technology organisation, which supports all research areas worldwide with skills in compound screening, structural chemistry, proteomics, protein production and informatics.

We continued to invest in our facilities – upgrading or replacing old laboratories, continuing the build up in Boston, US and purchasing new technology and equipment to improve our capability in leading edge science. Recruitment of highly skilled new staff continued alongside the ongoing training and development of existing employees where appropriate. To enhance the recognition of the importance of scientific endeavour, we introduced individual awards for outstanding scientific achievement.

Collaborations with academic and biotechnology groups remain an important aspect of increasing knowledge and opportunity in Discovery. The table on this page illustrates a number of key collaborations.

Development

Our global Development organisation consists of approximately 4,000 people with skills in clinical research, regulatory affairs, pharmaceutical development and process chemistry. The organisation is managed from six major research sites in the US, the UK and Sweden but functions as an integrated global structure. Site specific orientation is not encouraged except where dictated by the needs of specific technologies or equipment. This is to encourage maximum productivity by capitalising on the efficiencies available from global working, applied flexibly across the business.

The major focus in 2001 has been to deliver the development portfolio and particularly the high priority late stage development projects including *Crestor*, *Iressa*, *Faslodex* and *Casodex*. This has been successfully achieved, but in addition there has been major progress on continued globalisation and improvement of productivity and speed of product development. Clinical research is now

conducted to high standards in more areas, including South America, Central and Eastern Europe and Asia. Globally, we are maximising the opportunities presented by the increasing use of e-business and other web-based technologies in clinical research, to share information and gain quicker access to data. Access to external expertise and technology has been expanded by collaboration with an increasing range of universities and other companies, particularly in drug delivery and strategic outsourcing which is now used widely, accounting for about 30% of total development activity. These initiatives have proved very productive in terms of speed and efficiency. AstraZeneca drug development is now amongst the fastest in the industry, as shown by external benchmarking (CMR International).

Some key collaborations

Conaris Research Institute GmbH	Genetic linkage to inflammatory bowel disease
Cyclacel Limited	Cell cycle inhibition
Incyte Genomics, Inc.	Genomics database
Gene Logic Inc.	GeneExpress Product (gene expression databases)
NPS Pharmaceuticals, Inc.	Metabotropic glutamate receptors
BioSignal, Inc.	G-protein-coupled receptor (GPCR) screening technology
Shanghai Jiaotong University	Genetics linked to schizophrenia
Pharmexa A/S	CellScreen technology for functional genomics
The University of Liverpool	Insulin resistance and obesity
Dyax Corp.	Recombinant antibody library
Chembridge Corporation	Combinatorial screening library

Development Pipeline

Compound	Mechanism	Indication	Stage of development		Estimated filing date	
			CT	DFL	MAA	NDA
Gastrointestinal (GI)						
NCEs						
AR-H047108	reversible acid pump inhibitor	acid related GI disease			>2004	>2004
AZD3355 (reflux inhibitor)	inhibitor of transient lower oesophageal sphincter relaxations (TLESR)	GERD			>2004	>2004
rofleponide	oral steroid with topical action	inflammatory bowel disease			>2004	>2004
Line extensions						
<i>Nexium</i>	proton pump inhibitor	multiple indications			2003+	2003+
+ Multiple indications from 2003 onwards						
Cardiovascular (CV)						
NCEs						
<i>Crestor</i>	statin	hyperlipidaemia			Filed	Filed
<i>Exanta</i> (melagatran)	thrombin inhibitor (sc)	prevention of VTE			3Q 2002	> 2004
<i>Exanta</i> (H376/95)	thrombin inhibitor	prevention of VTE			3Q 2002	1H 2003
		prevention of stroke in AF			1H 2003	1H 2003
		treatment of VTE			1H 2003	2004
		post acute coronary syndrome			>2004	>2004
AZD6140	P ₂ T antagonist	arterial thrombosis			>2004	>2004
AZ242	PPAR agonist	diabetes/insulin resistance			>2004	>2004
AZD7545	PDK inhibitor (anti-diabetic)	diabetes			>2004	>2004
AZD7009	atrial repolarisation delaying agent (ARDA)	AF			>2004	>2004
Line extensions						
<i>Atacand</i>	angiotensin II antagonist	hypertension outcomes (SCOPE study)			3Q 2002	3Q 2002
		CHF outcomes (CHARM study)			2H 2003	2H 2003
		diabetic retinopathy (DIRECT study)			>2004	>2004
In addition, paediatric programmes are ongoing/planned for <i>Atacand</i> and <i>Seloken/Toprol-XL</i>						
Oncology						
NCEs						
<i>Faslodex</i>	oestrogen receptor down regulator	2nd line advanced breast cancer			2002	Filed
		1st line advanced breast cancer			2002	2002
<i>Iressa</i>	signal transduction inhibitor (EGFR-TKI)	NSCLC and other solid tumours			2Q 2002+	Filed+
ZD9331	thymidilate synthase inhibitor (iv)	solid tumours			2004	2004
	thymidilate synthase inhibitor (oral)	solid tumours			>2004	>2004
ZD6126	vascular targeting agent	solid tumours			>2004	>2004
ZD6474	angiogenesis inhibitor (VEGFR-TKI)	solid tumours			>2004	>2004
AZD2171	angiogenesis inhibitor (VEGFR-TKI)	solid tumours & haematological malignancies			>2004	>2004
ZD3409	farnesyl-transferase inhibitor (FAR)	solid tumours			>2004	>2004
Line extensions						
<i>Arimidex</i>	aromatase inhibitor	adjuvant breast cancer			1Q 2002	1Q 2002
<i>Casodex</i>	anti-androgen	early prostate cancer			Filed	Filed
<i>Zoladex</i>	LHRH analogue	premenopausal adjuvant breast cancer			Launched	1H 2003

* US filing: NSCLC monotherapy filed, combination filing 2Q 2002; EU filing: NSCLC monotherapy and combination 2Q 2002

Comments

Our previous pipeline tables have displayed some projects in the pre-clinical stage (prior to the selection of a candidate drug for development). The current table shows development compounds in concept testing and development for launch.

CT concept testing, from candidate drug (CD) nomination, through to phase 1 and phase 2 completion.

DFL development for launch, phase 3a and phase 3b activities conducted prior to filing.

Compound	Mechanism	Indication	Stage of development		Estimated filing date	
			CT	DFL	MAA	NDA
Respiratory and Inflammation						
NCEs						
D5522	intranasal steroid	rinitis			2004	2004
ZD4407	5-lipoxygenase inhibitor	COPD			>2004	>2004
ZD2315	immunomodulator	rheumatoid arthritis			>2004	>2004
AZD9056	ion channel blocker	rheumatoid arthritis			>2004	>2004
AZD8309	chemokine receptor antagonist	rheumatoid arthritis			>2004	>2004
AZD7140	chemokine receptor antagonist	rheumatoid arthritis			>2004	>2004
Line extensions						
<i>Symbicort Turbuhaler</i>	inhaled steroid/long-acting beta-agonist	COPD			1Q 2002	-
		single therapy for asthma			2H 2003	-
<i>Symbicort</i> pMDI	inhaled steroid/long-acting beta-agonist	asthma			2H 2003	2004
<i>Oxis Turbuhaler</i>	long-acting beta-agonist	COPD			2Q 2002	+
		paediatric asthma			Filed	+
<i>Oxis</i> pMDI	long-acting beta-agonist	asthma/COPD			2H 2003	-
+ Following a review, <i>Oxis</i> will not be developed for the US market and resources will focus on <i>Symbicort</i> pMDI						
Central Nervous System (CNS)						
NCEs						
NXY-059	free radical trapping agent	stroke			>2004	>2004
NAD-299	5HT _{1A} antagonist	anxiety/depression			>2004	>2004
AR-A2	5HT _{1B} antagonist	anxiety/depression			>2004	>2004
ZD0947	K ⁺ channel opener	overactive bladder			>2004	>2004
AZD5106	NK-2 antagonist	overactive bladder			>2004	>2004
Line extensions						
<i>Seroquel</i>	D ₂ /5HT ₂ antagonist	granules			1H 2003	1H 2003
		sustained release			4Q 2002	4Q 2002
		mania			1H 2003	1H 2003
<i>Zomig</i>	5HT _{1B/1D} receptor antagonist	adolescents			2H 2003	2H 2003
		nasal spray			Filed	1Q 2002
Pain Control						
NCEs						
AZD3582	CINOD	acute/chronic pain			>2004	>2004
AZD4282 (oral glycine)	NMDA antagonist	neuropathic pain			>2004	>2004
Line extensions						
<i>Naropin</i>	sodium channel blocker	spinal anaesthesia			Filed	-*
+ <i>Naropin</i> will not be filed for spinal anaesthesia in the US						
Infection						
NCEs						
AZD2563	oxazolidinone antibiotic	G+ve infections, including MRS			>2004	>2004
Line extensions						
<i>Merrem</i>	carbapenem antibiotic	use in neutropenics			-	>2004
		skin and skin structure infections			-	1H 2003

Other abbreviations

AF – atrial fibrillation
CHF – congestive heart failure
CINOD – Cox inhibiting nitric oxide donator
COPD – chronic obstructive pulmonary disease
EGFR-TKI – epidermal growth factor receptor-tyrosine kinase inhibitor
G+ve – Gram positive
GERD – gastro-oesophageal reflux disease
iv – intravenous
K⁺ – potassium
LHRH – luteinising-hormone releasing hormone
MAA – marketing authorisation application (Europe)
MRS – multi-resistant strains
NCE – new chemical entity
NDA – new drug application (US)

NK-2 – neurokinin 2 antagonist
NMDA – N-methyl-D-aspartate
NSCLC – non-small cell lung cancer
PDK – pyruvate dehydrogenase kinase
P₂T – purine-2T receptor antagonist
PPAR – peroxisome proliferator-activated receptor
sc – subcutaneous
TLESR – transient lower oesophageal sphincter relaxations
VEGFR-TKI – vascular endothelial cell growth factor receptor-tyrosine kinase inhibitor
VTE – venous thromboembolism
> 2004 – not earlier than 2005

e-Business Strategy

AstraZeneca's e-business strategy focuses on leveraging e-business experience across our major markets to support the development, launch and marketing of our products, increase productivity and reduce costs.

Efficient pharmaceutical development requires transparent, quality assured processes, acceptable to the regulatory authorities and increasingly relies on new technologies, such as web-based systems for data collection, as well as strategic outsourcing. We are making significant investment in these new approaches to support our R&D ambitions.

We are also using internet-enabled processes and external partnerships to simplify the capture, collation, analysis and reporting of clinical trials data and further progress has been made in business-to-business activity, with the successful use of e-procurement and technologies that improve supply chain processes.

Internet marketing and promotion have been integrated into our commercial operations globally and we continue to expand our online activity as more healthcare professionals and patients rely on the internet for information and communication. In particular, we focus on providing a wide range of internet-based physician resources in key therapeutic areas.

In the US, AstraZeneca also maximises opportunities for direct contact with the consumer by providing patient-focused websites as well as a range of other online promotions. A number of strategic e-business projects have been initiated in the US and will be extended to other markets as appropriate. For further information, see page 19.

In Europe, we have e-business pilot programmes underway to improve patient compliance by offering online patient education, monitoring tools and improved interaction with healthcare providers.

Portfolio Management and Commercialisation

We have one of the broadest portfolios in the industry today with 86 projects in development. Maintaining the quality of this portfolio requires stringent prioritisation to maximise the value of high potential products and manage the progress of promising compounds in earlier development.

A global marketing and licensing function, Product Strategy and Licensing (PS&L), works closely with R&D, our therapeutic area teams and our major marketing companies in the US, Europe and Japan to optimise AstraZeneca's commercial opportunities across the business. This includes the commercial aspects of R&D portfolio prioritisation.

PS&L leads and co-ordinates the development and delivery of global product strategies, communication and brands to ensure alignment of the global and national plans and resources.

Successful commercialisation of new products is dependent on satisfying the needs of the customer with a product with the right profile, including medical and marketing information. Target product profiles (TPP) are clearly defined early in development and act as a focal point for R&D activity as well as planning by the sales and marketing organisations. The TPPs include market positioning, product features and benefits, medical and health outcomes information, pricing and brand identity.

Licensing remains a key activity and, in common with other leading pharmaceutical companies, we continually seek to strengthen our development portfolio and sales range with promising therapies from external sources.

Sales and Marketing

AstraZeneca has an extensive worldwide sales and marketing network and in the majority of key markets, we sell our products through wholly-owned local marketing companies. In other countries, we sell through third-party distributors or local representative offices.

Our products are marketed primarily to physicians (both general and specialist). However, marketing efforts are also directed towards explaining the economic and therapeutic benefits of our products to healthcare buying groups such as managed care organisations in the US, trust hospitals and budget-holding medical groups in the UK and insurance groups in Germany.

Competition

AstraZeneca operates in the highly competitive and regulated prescription pharmaceutical market. Our principal competitors are other major pharmaceutical companies.

Our products compete against other branded, patent-protected, prescription products from international research-based pharmaceutical and biotechnology companies and against generic products from companies which typically do not incur significant R&D costs.

Our ability to maintain and enhance our competitive position in our chosen therapeutic areas depends mainly on our development of new, innovative, cost-effective products from our R&D and in-licensing activities, the manufacture and supply of products to high quality standards and the effective marketing of products to our global customer groups.

Geographical Review

North America

US

In support of our key objective of 'winning in the US', we continued to build our presence in this highly competitive market in 2001, focusing on strategic priorities that should enable the introduction of new differentiated products, offer leading-edge technology to customers, deliver innovative employee programmes and strengthen business performance. We increased sales by 7% in 2001 from \$8,153 million to \$8,700 million and AstraZeneca now ranks 4th in the US with a share of 5.8% of the prescription pharmaceutical market¹.

Product highlights in the year included:

- Our GI leadership position in the US was further enhanced by the launch of *Nexium* and *Entocort* in 2001. *Nexium* finished the year with a 16.3% share of new prescriptions in the proton pump inhibitor (PPI) market securing the position of most successful anti-secretory product launch ever. This performance, combined with continued strong demand for *Prilosec (Losec)*, gave AstraZeneca an overall 47.5% share of the PPI market.
- We have the largest prescription pharmaceutical portfolio in branded hypertensives, with two top five products, *Zestril* and *Toprol-XL (Seloken ZOK)* and total CV portfolio growth of 8%. In 2001, CV sales totalled \$1,564 million. *Toprol-XL*, the leading branded beta-blocker, increased prescription market share to 18.2%, up from 15% in 2000. The *Atacand* family achieved a total prescription volume growth of 49.3% versus total prescription volume growth for the angiotensin II antagonist blocker market of 24.3%.
- In the 12 months since its launch, *Pulmicort Respules* has become the inhaled corticosteroid of choice for the treatment of children under five years of age who suffer from persistent asthma. This, combined with the successful performance of the new *Rhinocort Aqua* spray unit, which increased sales for the product, led to an overall increase of 38% in respiratory sales.
- 2001 was another year of strong growth in the CNS area, with sales increasing by 37% to \$725 million. *Seroquel*, a key growth driver, achieved cumulative sales since launch in 1997 of \$1,262 million. It continued to penetrate the anti-psychotic market in spite of a major competitive launch, gaining a 13.2% market share with sales of \$568 million, a 51% increase. *Zomig* also gained ground in the competitive anti-migraine market with the introduction of the oral disintegrating formulation, *Zomig-ZMT*.
- We maintained 2000 sales levels in the pain control therapy area despite *Diprivan* sales being eroded by generic competition.
- Several milestones were reported during the year in infection, including submission of the *Merrem* pneumonia indication, the initiation of a *Merrem* skin trial and the completion of a cystic fibrosis trial. The cystic fibrosis indication has been granted 'Orphan Drug' status by the FDA. *Merrem* sales grew by 135%.
- In order to boost R&D effort in infection, we formed a new infection discovery team of over 100 people working in our new Boston R&D facility.
- *Casodex* remained the anti-androgen market leader with 77.1% prescription market share, its highest level since launch. A supplemental New Drug Application (sNDA) for *Casodex* 150mg tablet was submitted towards the end of 2001 for the treatment of early prostate cancer. *Zoladex* achieved a growth rate of 9%. *Arimidex* continues to achieve double digit sales growth at 15%. *Nolvadex* continued to show positive sales growth signifying use in earlier stages of invasive and non-invasive breast cancer.
- During the year, an NDA was submitted for *Faslodex*, further strengthening our leadership position in hormonal breast cancer treatments.
- In December, the ATAC study presented exciting new data on the effect of *Arimidex* as an adjuvant treatment in post menopausal women with early breast cancer. As a result, the FDA granted fast track status for the supplementary licence application for *Arimidex*.
- *Iressa* completed patient recruitment for trials in first line and third line treatment of non-small cell lung cancer. For the third line indication, *Iressa* received fast track submission status from the FDA. At the end of 2001, major components of the NDA, including the clinical data package, were submitted. There remain a few manufacturing documents to complete the NDA package.

To maximise the opportunities presented by the flow of new products, we have re-structured and expanded our sales force, which is now the third largest in the pharmaceutical industry.

The internet has rapidly become an important channel for the provision of information and services, with healthcare information consistently amongst the most popular search requests. Within the US, we have successfully integrated e-business into several areas of operation including brand marketing, customer relationship management and supply chain management.

We continue to support the launch of key brands using the internet and seek to effectively maximise our direct-to-consumer opportunities by the provision of patient-focused websites as well as a range of web-based services for healthcare professionals. A number of strategic e-business programmes have been initiated to explore the potential of handheld devices, e-detailing and continuing medical education.

To generate improvements in patient safety and overall practice efficiencies, we entered into an agreement with ePhysician to provide handheld prescribing and drug resource products to office based physicians. The focus of the agreement is to provide physicians with point of care electronic prescribing and clinical content products, to enable more efficient interaction between physicians and pharmaceutical sales professionals and to offer disease specific and pharmaceutical product information to physicians at the point of patient care.

In addition to our work to integrate innovative internet technologies into the clinical development processes, AstraZeneca sponsors information on its clinical programmes in the US for healthcare professionals, patients and interested consumers through online clinical trials listing services.

In line with our aim to attract and retain the best talent, we introduced new or enhanced employee benefits programmes during the year such as senior care, emergency childcare, maternity, paternity and adoptive parent programmes. Voluntary employee turnover decreased from approximately 9% in 2000 to approximately 7% in 2001.

Our understanding of the US market, together with our products, people skills and commitment to the customer, leave us well placed to increase sales further and improve upon a leading position in this strategically important market.

¹IMS Health, retail provider perspective RX products only. MAT Q3 2001

Geographical Review (continued)

Canada

In 2001, sales growth in Canada was 14% with total sales of \$525 million. The product portfolio performed well, particularly *Losec* with 17% growth. *Nexium* was successfully launched and is rapidly gaining market share. Two product franchises, *Atacand* and *Seroquel* performed very well over the previous year with increases of 73% and 110% respectively. The oncology group had another successful year with sales growth of over 15%, driven largely by *Zoladex* and *Casodex*.

Europe

AstraZeneca ranks third in the European pharmaceutical market by value with a market share of 5.4%. Sales grew 8% to \$5,270 million in 2001, representing 32% of our total business¹. Strong growth continues to be seen in France and Italy.

France is still the largest AstraZeneca market outside the US, with sales growth of 15%, significantly ahead of market growth of 9%. AstraZeneca ranks number four in France with a 5% market share. Elsewhere in Europe, AstraZeneca ranks as number one in Sweden with a market share of 16.6%², number two in the UK with a share of 8.2%, number five in Germany with 3.9% market share and number six in Italy with a 4.5% market share.

Across Europe, the important growth products (*Seroquel*, *Atacand*, *Casodex*, *Zomig* and *Arimidex*) were again central to our improved performance with combined sales of \$680 million, up 8% and representing 13% of our total European sales (12.5% in 2000). *Nexium* has been launched in 14 European countries and market share is increasing steadily on a monthly basis. *Symbicort* has been launched in 18 European countries and has captured more than 10% of the fixed combination asthma market in the majority of these launch countries¹.

To enhance further our commercial strength in Europe, we have increased the sales force in our top eight countries by more than 800 permanent representatives.

Product highlights across Europe in the year included:

France *Losec* continued to grow rapidly in 2001 with a 17% increase in sales over 2000, further expanding its market share. Growth of newer products, *Atacand*, *Zomig*, *Casodex* and *Arimidex*, continued to outperform their respective markets. The *Atacand* family sales growth was significantly enhanced by the launch of an angiotensin II antagonist diuretic combination, *Atacand Plus*, into the fastest growing segment of the hypertension market.

Germany The delay in implementing reference pricing has enabled sales growth of 4%. *Nexium* has already gained 10% of the antacid market and overall our share of the segment is 22.9%. Since its launch in January 2001, *Symbicort* has gained 24% of the fixed long acting beta-agonist (LABA)/steroid combination market and achieved sales of \$21 million.

UK Sales growth in the UK was steady at 1%. The key growth product *Symbicort* was launched in June into the fastest growing segment of the asthma market, the fixed LABA/steroid combination market. Early customer feedback has been extremely positive. A market share of 9.4% of the combination market has now been achieved¹. *Losec* sales at \$310 million were 1% below the same period in 2000, despite increased pressure on price and no active promotion since the *Nexium* launch in September 2000¹. Market share was 50.3% (57.5% for the same period in 2000)¹. After a slow start the *Nexium* prescription trend is looking more positive with a monthly growth rate of over 10%³ and a market share of 3% of the PPI market.

Italy Sales growth of 21% was ahead of the market (+13%). *Losec* capitalised on the easing of prescribing restrictions for PPIs and grew by 45%. The *Atacand* family continues to show very strong growth at 40%. Other key contributors to sales growth included *Casodex* (+47%) and *Zomig* (+75%).

Sweden Overall sales in Sweden fell by 4% in 2001. *Nexium* faced significant challenges in 2001 mainly due to the pricing of competitor PPIs which has led to some difficulty in securing formulary status in several important areas. *Nexium* market share development is now showing a positive trend (9.9% at the end of 2001)². *Symbicort* has performed well and has already reached a 44% market share of the fixed LABA/steroid combination market since its launch in September 2000.

Japan

Adjusting for divestments, AstraZeneca is the second fastest growing major pharmaceutical company in Japan, the world's second largest pharmaceutical market. Our ranking rose to number 19 compared to number 21 in 2000¹. Sales growth of 16% significantly exceeded the market growth of 4%, despite the negative impact of the divestments of the 'Hibi' range of hospital antiseptics to Sumitomo Chemical Ltd in September 2000 and the dental business to Dentsply International, Inc. in March 2001. Excluding divestments, underlying volume growth was 23%. *Losec* (known in Japan as *Omepral*) sales grew 85% following the approval of long term use indications and the launches of a 10mg tablet and intravenous formulation. Other PPIs have also obtained long term use indications and as a result the share of the total PPI and H2RA market obtained by PPIs has increased from 14% in 2000 to 24% in 2001¹. *Casodex* sales also grew strongly by 56% and it now has a 50% share of the anti-androgen market.

During 2001, in addition to the *Losec* line extensions, we launched *Accolate*, *Arimidex*, *Seroquel*, *Zomig*, *Diprivan PFS* and *Anapeine (Naropin)*. *Seroquel* (out-licensed to Fujisawa) and *Arimidex* have both had very successful launches and achieved market shares of 10% and 9% in the anti-psychotic and breast cancer markets respectively¹. *Zomig* also started steadily following its launch in August and now has 24% of the anti-migraine market¹. *Accolate* has been less successful, achieving only a 6% share of the leukotriene antagonist market¹.

Rest of World

Sales in the rest of the world increased 7% and account for 7% of AstraZeneca's turnover. Strong growth was achieved in South Korea (+41%), Indonesia (+36%), Thailand (+14%) and China (+10%). During the first quarter of 2001, we acquired majority ownership and management control of Astra-IDL in Bangalore, India (now known as AstraZeneca Pharma India Limited). The Indian pharmaceutical market is currently the 12th largest in the world at \$4.0 billion. In Brazil, major media campaigns to increase public awareness of the availability of generic medicines have impacted severely on sales of *Tenormin*, *Zestril* and *Losec*. As a result retail market share has declined from 1.74% to 1.66%. In contrast, the hospital products line has grown relative to the market so our total company position in Brazil has risen from 11th to 10th⁴.

Manufacturing and Supply

Responsible for manufacturing and supply, our Operations organisation supports AstraZeneca's corporate targets by securing supplies of our product portfolio through responsive, cost-efficient manufacture and the successful introduction of new products into manufacturing.

Employing approximately 14,000 people at 34 sites in 20 countries, Operations provides an important link between R&D and our sales and marketing organisation.

The introduction of new products from the R&D pipeline, which often require multiple launches around the world within a short timeframe, present particular challenges. The likelihood of high demand initially, followed by rapid growth in a variety of different markets, means that the manufacturing and supply organisation has to deliver a service that is both responsive and flexible, without compromising product quality or safety. Two of the most recent and important new product launches, *Nexium* and *Symbicort*, demonstrated how new products from R&D can be introduced successfully into production and how quickly we can supply customers after marketing approval.

We devoted particular energy and focus in 2001 to preparations for the launch of *Crestor*. Several new facilities were commissioned for the manufacture of the active pharmaceutical ingredient in the UK and the formulated product in Puerto Rico. Significant resources were devoted to the creation of a seamless and effective supply chain for *Crestor* ready to support the product's launch throughout the world.

Preparations for the planned launches of *Iressa* in 2002 have been especially challenging due to its fast track review process with the FDA, but work is well underway to deliver the capability and capacity needed for the launch of the product.

An efficient site and supply network

Continued success depends upon the efficient operation of our network of manufacturing sites. During 2001, long term roles for the majority of our sites, based on their particular capabilities and the specific needs of our customers, were defined and communicated to employees. With the assignment and effective implementation of these site roles, we have created a fully integrated global manufacturing network possessing the supply capability and capacity needed to deliver our manufacturing responsibilities. AstraZeneca's site network is supported by global supply chain management teams as well as purchasing, engineering, safety, health and environment (SHE) and compliance functions.

There are three main stages of pharmaceutical product manufacture: manufacture of the active pharmaceutical ingredient, its formulation into finished dosage forms (such as tablets, sterile pre-filled syringes or the *Turbuhaler* dry powder inhaler) and packaging.

Our general strategy is to operate a small number of sites for the manufacture of active pharmaceutical ingredients; we have six such sites in France, Germany, Sweden, the UK and Puerto Rico employing approximately 1,800 people.

For the formulation of products, we have a limited number of sites for the launch and global supply of our principal products, supported by facilities which produce established products for regional or local markets. Our major formulation sites for oral, solid dosage forms (such as tablets and capsules) are in France, Germany, Sweden, the US, the UK and Puerto Rico. We also have major formulation sites for the global supply of parenteral dosage forms and inhalation products in France, Sweden and the UK. Our formulation sites employ approximately 11,500 people.

During 2001, we continued to consolidate our site network by announcing the sale of a manufacturing facility in Sweden and closing a formulation and packaging site in Spain. Each site employed approximately 60 people.

Continuing investment

Investment for growth remains a core part of AstraZeneca's manufacturing and supply strategy and throughout 2001 we made significant financial investments with capital expenditure totalling \$665 million. New plants brought into operation during the year included capacity for *Nexium* in France and Sweden, for *Turbuhaler* dry powder inhalers in Sweden, for CFC-free, pressurised metered dose inhalers in France and for *Crestor* in Puerto Rico, the UK and Germany.

Looking ahead, expansion of manufacturing capability in the UK, Sweden, Puerto Rico, France and Japan is being planned or has already started to enable us to meet the growing demands of our portfolio, particularly in key markets.

Regulatory environment

The challenging regulatory environment within which AstraZeneca operates is intended to ensure both patient safety and the efficacy of medicines. Our manufacturing and supply organisation complies with all material regulations and works hard to exceed the expectations of all stakeholders as well as those of regulatory authorities. During 2001, we did not experience any delays to approvals due to regulatory compliance issues at our manufacturing sites. There were several successful pre-approval inspections by regulatory authorities during the year and, in particular, all sites preparing for the launch of *Crestor* were approved.

SHE operating standards around the world continue to become more stringent, with regulators placing particular emphasis on environmental standards. AstraZeneca's manufacturing sites are operated under various site licensing regimes. Whilst occasional non-compliances occur, we are focused on meeting current good practice standards and regulatory requirements at all sites. There are currently no major environmental issues which prevent us from using any of our sites. Further information about our SHE performance can be found on page 24.

Raw materials

AstraZeneca's global purchasing policy together with our business interruption risk management (BIRM) process are aimed at ensuring the secure supply of raw materials, manufacturing equipment and other key supplies, all of which are purchased from a wide range of sources. The BIRM process systematically examines a range of risks to the manufacturing and supply organisation, such as natural disasters or the unavailability of key raw materials and is designed to ensure that these risks are mitigated by the implementation of appropriate contingency plans. These might include the appointment of dual or multiple suppliers, together with the maintenance of appropriate stock levels. Although the prices of raw materials may fluctuate from time to time, our global purchasing policy seeks to avoid such fluctuations becoming material to our business.

¹IMS Health November 2001

²IMS Health December 2001

³Taylor Nelson Sofres, Healthcare-Scriptcount

⁴Grupemef/Arbifarma YTD September 2001

Other Businesses

Astra Tech

Astra Tech is engaged in the R&D, manufacture and marketing of medical devices and implants for use in healthcare, primarily in urology but also in odontology, diagnostic radiology and surgery. Astra Tech has a leading position in the Nordic countries and is expanding its operations in Europe and other key markets.

All products showed good sales growth, in particular the Dental Implant System, which is gaining market share in several key markets. Further investments have been made in R&D, clinical research and new production facilities to strengthen the product portfolio and in the US in sales and marketing capabilities.

Salick Health Care

Salick Health Care (SHC) is a leading provider of outpatient oncology management and consulting services in the US. Ownership of SHC provides AstraZeneca with a unique window on the provider sector of the US oncology market and access to many leading oncologists.

SHC manages full-service outpatient comprehensive cancer centres in affiliation with major teaching and community hospitals in California, Florida and New York and is affiliated with a large network of over 100 physicians, working in specialised areas such as medical, radiation and surgical oncology.

During 2001, SHC successfully launched a consultancy business to provide hospitals with assessments of cancer care programmes and their financial feasibility.

Additionally, SHC continued its development of an innovative clinical research network to improve patient care and cancer treatment. SHC participated successfully in a number of nationally coordinated trials in 2001 which it plans to further expand in 2002.

Marlow Foods

Marlow Foods is a leading company in the fast growing 'healthy eating' sector of the food market. Marlow Foods has established this position through the *Quorn* brand. *Quorn* foods use mycoprotein, an innovative protein provided by fermentation. *Quorn* is the leading meat alternative brand in Europe and globally at retail level. *Quorn* foods are currently available in the UK and other countries in Europe where sales increased by 18% and 39% respectively in 2001.

Further launches in 2002, including the US, and product developments offer significant growth opportunities for Marlow Foods.

Main Facilities

AstraZeneca owns and operates numerous production, marketing and R&D facilities worldwide. Our corporate headquarters are in London, UK and our R&D headquarters are in Södertälje, Sweden.

Out of a total 34 manufacturing sites in 20 countries, our principal manufacturing facilities are in the UK (Avlon and Macclesfield); Sweden (Södertälje Snäckviken and Södertälje Gärtuna); the US (Newark, Delaware and Westborough, Massachusetts); Australia (North Ryde, New South Wales); Brazil (Cotia); Canada (Mississauga, Ontario); China (Wuxi); France (Dunkirk, Monts and Reims); Germany (Plankstadt); Italy (Caponago); Japan (Maihara); and Puerto Rico (Canovanas, Carolina and Guayama).

Bulk drug production is concentrated in the UK, Sweden, France, Germany and Puerto Rico.

Our principal R&D facilities are in the UK (Alderley Park and Charnwood); Sweden (Lund, Mölndal and Södertälje); the US (Boston, Massachusetts and Wilmington, Delaware); Canada (Montreal, Québec); and India (Bangalore).

Substantially all of our properties are held freehold, free of material encumbrances and we believe such properties are adequate for their purposes and suitably utilised.

Intellectual Property

During 2001, AstraZeneca invested \$2,687 million in global healthcare R&D activities. Obtaining adequate protection for the intellectual property associated with these activities continues to be a key business imperative. The range of protection includes patents, trade marks, design registrations, copyrights and internet domain name registrations.

Our policy is to seek patent or other appropriate intellectual property protection for all of the inventions and innovations of significant commercial value which arise from our drug discovery, development, manufacturing, marketing and other business activities.

This policy is designed to provide each of our new products with an effective shield of valid, enforceable patent or other intellectual property rights in all significant markets to protect unauthorised competition during commercialisation. This shield of intellectual property rights extends to those areas of target identification, genomics and other research technologies in which we invest significant resources. The adequacy of the patent and trade mark portfolio for individual products is kept under review during product development, clinical evaluation and early marketing so that, wherever possible, additional protection may be sought for new applications and developments. The therapeutic area focus of our R&D operating model allows appropriate intellectual property strategies to be formulated and regularly updated from an early stage in product development.

Industry Regulation

Our products are subject to numerous regulations concerning their safety and efficacy. In many cases, governments also fix their price and/or restrict access to reimbursement. The degree and scope of regulation varies according to the product and jurisdiction concerned.

Regulations governing prescription pharmaceuticals are stringent and the manufacture and marketing of these products are normally conditional upon regulatory approval. Registration processes are complex and time-consuming and involve significant expenditure. Regulation is concerned not only with a product's chemical composition, but also with matters such as manufacturing, handling, packaging, labelling, distribution, promotion and marketing.

AstraZeneca routinely participates in various industry associations and other bodies which, among other things, seek to ensure that those implementing legislation and regulation affecting pharmaceutical companies are fully informed as to its impact.

Product regulation

Before a pharmaceutical product is approved for marketing, it must undergo exhaustive and lengthy clinical trials. The process of developing a new pharmaceutical product, from discovery to launch in the market, can take up to 12 years, but this period varies considerably in different cases and countries. The time taken from submission of an application for marketing approval to launch of the product is typically one to two years.

After a product has been approved and launched, it is a condition of the product licence that all aspects relating to its safety, efficacy and quality must be kept under review. Depending on the jurisdiction, fines and other penalties may be imposed for failure to adhere to the conditions of product licences. In extreme cases, the product licence may be revoked resulting in withdrawal of the product from sale. Our promotional and marketing activities are also tightly controlled by regulations and self regulating codes of ethical marketing practices.

During the marketing of a product, strict procedures must be in place to monitor, evaluate and report any potential adverse reactions. Where adverse reactions occur or it is judged that they may occur, changes may be required to prescribing advice and to the product licences. In extreme cases, the product licence may be revoked resulting in withdrawal of the product from sale.

Manufacturing plants and processes are subject to periodic external inspection by regulators as part of their monitoring procedures to ensure that manufacturers are complying with prescribed standards of operation.

Price regulation

Prescription medicines are subject to government controls on price and reimbursement which operate in most countries in which we sell our products. This can result in large price differentials between markets, which may be further aggravated by currency fluctuations.

US Currently, there is no direct government control of prices for non-government drug sales in the US. Federal legislation mandates minimum discounts to US government agencies purchasing drugs for senior citizens, the poor and other populations with special needs. Providing these substantial discounts to the US government is also a condition for the manufacturers' drugs to be reimbursed by state Medicaid programmes and an additional rebate is required if manufacturer price increases after 1990 exceed the increase in inflation.

In addition, certain states have taken action to require further manufacturer rebates on Medicaid drug utilisation and for other state pharmaceutical assistance programmes.

In 2000, President Clinton signed the Medicines Equity and Drug Safety Act. However, the legislation was not implemented due to concerns over safety and cost-effectiveness. Nevertheless the US Congress is likely to revisit this legislation. The law would allow for the re-importation into the US of pharmaceutical products produced in the US and exported to countries where governmental price controls result in lower prices than in the US. If introduced, such a law could have an adverse impact on our revenues.

Europe Most governments in Europe control the price and reimbursement of medicines after taking into account the medical, financial and social impact of a product. This budget-based approach reflects increasing constraints in overall healthcare spending. Governments increasingly require more assurance of value in their expenditures on medicines.

Recently, several governments, such as those in France, Italy and Spain, have introduced new constraints on prices and some, such as Germany, have introduced other measures which put downward pressure on pricing or reimbursement of medicines.

Japan There is formal central government control of prices in Japan. New product prices are determined primarily by comparison with existing product classes. All existing products are subject to a price review at least every two years. New regulations introduced in 2000 included the overseas average price adjustment method under which prices can be set according to the average price of four major countries (the US, the UK, Germany and France). Generally, if the US pricing environment remains unchanged, these regulations are likely to have a positive impact on pharmaceutical prices in Japan.

Product regulation: Astra Tech

Product registration and certified quality management systems form the basis of the regulatory environment relating to medical devices. In Europe, compliance with regulatory requirements involves the implementation and maintenance of a quality management system and, for certain products, a design dossier review. Medical devices in the US are regulated through a product registration requirement. Astra Tech continues to maintain a European and US compliant quality management system.

Product regulation: Salick Health Care (SHC)

The healthcare facilities to which SHC provides administrative and management services on behalf of certain hospitals are subject to extensive federal, state and local legislation and regulations, such as those relating to the reimbursement and control of healthcare costs. The largest single component of SHC revenue continues to be fees that are affected by the reimbursement rates for healthcare services which are set or regulated by federal or state authorities.

Product regulation: Marlow Foods

National legislation governs the safety of food products and the nutritional content of foods and their ingredients. Generally, the responsibility for achieving the required standards and for the processes adopted in so doing, resides with the manufacturer. The regulatory agencies audit compliance by way of process audits and product analysis.

Corporate Social Responsibility

With a global business comes global responsibility and this means ensuring consistently high standards in the three areas of sustainable development: environmental, social and economic. Earning and maintaining the trust and confidence of shareholders and society in general is essential to our continued success.

We aim to set, promote and maintain high standards of corporate social responsibility (CSR) worldwide, which will, at a minimum, ensure that AstraZeneca meets national and international regulations. At the heart of our responsible approach is our CSR policy, which is being overseen by Board member Dame Bridget Ogilvie. The policy will be widely communicated within the Company during 2002 to ensure consistent and appropriate behaviour worldwide. In addition, key corporate policies, such as the AstraZeneca Code of Conduct and Safety, Health and Environment policy, support our commitment. We do not consider CSR to be an optional activity – it is an integral part of all that we do and we are determined that we will continue to be a company that is welcomed as a valued member of the global community.

As part of our integrated approach to CSR, AstraZeneca has invested \$10 million in new laboratories in Bangalore, India, which will focus on the discovery and development of a new treatment for tuberculosis (TB). TB is the single largest cause of adult death from infectious disease in the world.

In 2001, AstraZeneca was included in the FTSE4Good Index and the Dow Jones Sustainability Index following independent assessment of our approach to CSR.

At the World Economic Forum in January 2002, AstraZeneca made a commitment to the Global Health Initiative which focuses on the role that businesses can play in reducing diseases which contribute to global poverty and hold back economic development.

Further information about our CSR commitment, policies and performance is published each year in a separate report and is available on our website: www.astrazeneca.com

Safety, Health and Environment (SHE)

At the core of our CSR agenda is our commitment to good safety, health and environmental performance. Backed by a clear policy and set of standards, we are beginning to see the benefits from the implementation of our new SHE related management systems. During 2001 much work was done to obtain regular reporting of relevant SHE statistics and to progress to full implementation of our SHE standards.

Following the annual review of SHE at the end of 2000, the Board set five new SHE objectives:

Objective 1 To improve the safety, health and wellbeing of all our employees by introducing behaviour-based programmes at all locations before 1 July 2002;

Objective 2 To have no accidents or incidents and to minimise our environmental impact. During 2001 we will identify the key areas where improvement is a priority and the most useful indicators to measure our performance. Progress against these key performance indicators will be published from 2002 onwards;

Objective 3 To publish information about our SHE performance using the internationally recognised guidelines produced by the Global Reporting Initiative;

Objective 4 To conduct auditing as an essential part of continuous improvement. We began a global SHE management audit programme in April 2001 and programmes for local SHE audits were in place at all locations by the end of 2001; and

Objective 5 To achieve a reduction in the growth of carbon dioxide emissions from our facilities by 2005 – this will be by an amount equivalent to 20% of 1998 emissions.

Our SHE management audit programme is now fully operational. The objective of this programme is both to ensure that all facilities are operating to a consistent standard and to seek opportunities to share best practice and learning across AstraZeneca.

The annual review of SHE at the end of 2001 involved all facilities reporting their current performance, any significant SHE issues and plans for future improvement. This review found that there are currently no significant liabilities or areas of non-compliance but identified a number of areas where improvements are necessary to ensure that performance is maintained and emerging issues are properly resourced.

The demands made upon our industry to deliver improved environmental performance together with greater openness are increasing. We are therefore developing a strategy for the future that we expect will allow us to meet these

challenges effectively. The major areas under consideration are the change in culture necessary for full engagement of all our people, improvement in our systems of risk recognition and assessment, and enhancing the provision of relevant information to all our stakeholders.

Community involvement

We recognise the importance of good relations not just with shareholders, customers and employees, but with all those in society who have an interest in AstraZeneca's activities and progress.

We aim to be responsible members of our local communities through charitable donations, sponsorship and other initiatives that help to make a positive difference. In particular, we focus on bringing benefit in ways that are consistent with our business aim of improving human health and quality of life and on promoting the value of science within the community.

We also support a wide range of health education initiatives designed to increase awareness of major healthcare problems, such as breast and prostate cancer, heart and respiratory diseases and gastrointestinal disorders.

In 2001, AstraZeneca responded to the India earthquake appeal with a donation to the International Red Cross.

In the US, following the terrorist attacks in September 2001, AstraZeneca made significant donations to the American Red Cross and to the United Service Organization in Delaware as well as product donations to hospitals treating victims and rescue workers. Product donations were also made for the care of Afghan refugees.

To encourage young people's interest in science, we sponsor a range of science based school programmes. In the UK, the AstraZeneca Science Teaching Trust, an independent charity with a total trust fund of \$32 million, supports a programme of projects designed to help build the knowledge, skills and understanding required to promote and teach science effectively in primary schools. In 2001, the Trust sponsored a 'Little Book of Experiments' which was distributed to UK primary schools as part of the National Year of Science programme.

Last year, AstraZeneca donated \$19 million to charity.

People

AstraZeneca's success depends on the quality and performance of all our people worldwide and we value the individuality, diversity and creativity that every employee brings to our business.

Our commitment to promoting a culture of equal opportunity is embedded in our core values:

- respect for the individual and diversity
- openness, honesty, trust and support for each other
- integrity and high ethical standards
- leadership by example at all levels

Managing and rewarding high performance

We aim to build and maintain a performance-led culture in which everyone recognises the need to add value for customers and shareholders and understands the link between individual contribution and business priorities. Our business performance management systems support this objective. Our reward policy and practice link individual and team rewards with business performance at each level, aligning the interests of the Company, our shareholders and our employees.

Personal development

We encourage and support our people in developing their potential to the full. All AstraZeneca managers are responsible for working with each member of their team to agree a personal development plan for that person which is aligned with business needs and tailored to the individual's skills and aspirations. Employees contribute to the identification, delivery and evaluation of their subsequent learning and development. In addition, an online global centre for learning and development provides information, materials and ideas on personal development planning.

Developing global leaders

The AstraZeneca leadership capabilities defined by our Senior Executive Team continue to be applied throughout the Company. Global leadership programmes are designed to strengthen commitment to AstraZeneca's culture and values, enhance leadership capabilities and help leaders develop good working relationships across the organisation. Programmes include GOAL – a leadership programme for senior managers in global roles, 'Developing Leaders' – a programme for

staff moving into key leadership or functional roles and 'Senior Induction Programme' – an accelerated induction opportunity for senior managers new to the Company. These are complemented by local leadership and development programmes.

Global succession planning ensures that a pool of leaders is available to support our long term success and that succession plans are in place for key positions. The importance of international experience is recognised as a key development requirement for our future leaders.

Building the talent base

One of our top priorities is to attract and retain the best talent to meet existing and future employee and business needs worldwide. To support this aim, in 2001 we introduced our employer of choice initiative which focuses on three global themes that set the agenda for local implementation:

- energising work environment
- excellent development opportunities
- competitive and flexible reward

Employee communications

We aim to maintain an open management style, keeping our 54,000 employees in 45 countries informed of all major business decisions and events.

We use our intranet to provide leaders with the information and tools they need to share relevant information with their teams. Other media, online and print, are also used to keep employees informed and enable them to enhance their contribution to business success. A regular global employee survey provides employees with a comprehensive feedback channel and enables us to respond to the views of employees and monitor the success and impact of ongoing global initiatives.

As part of the ongoing response to the 2000 employee survey, in 2001 members of our Senior Executive Team undertook a number of employee presentations worldwide to foster open dialogue and leadership visibility.

Within Europe, employee consultation arrangements are in place and elected representatives form an employee consultation forum, which is chaired by the Chief Executive.

Wellbeing

We believe that if we are to expect people's energy and commitment at work, we must provide the right environment and ensure the physical and psychological wellbeing of our employees. AstraZeneca's WellBeing programmes around the world are designed to ensure the wellbeing of employees and complement existing occupational health and safety programmes, including physical development, stress management and healthy nutrition. WellBeing programmes are underway in Brazil, Canada, France, Philippines, Sweden, the UK and the US. Best practice is being shared across AstraZeneca to encourage and help with similar activities in other locations.

Board of Directors

Percy Barnevik (61)‡
Non-Executive Chairman
 Appointed as a Director 6 April 1999.
 Non-Executive Chairman of Sandvik AB.
 Non-Executive Director of General Motors Corporation.

Håkan Mogren (57)‡
Executive Deputy Chairman
 Appointed as a Director 6 April 1999.
 Formerly CEO and a Director of Astra AB (appointed 18 May 1988). Non-Executive Chairman of Reckitt Benckiser plc. Chairman of the British-Swedish Chamber of Commerce and the Research Institute of Industrial Economics (IU). Non-Executive Vice-Chairman of Gambro AB. Non-Executive Director of Investor AB, Norsk Hydro ASA and the Marianne and Marcus Wallenberg Foundation. Member of the Royal Swedish Academy of Engineering Sciences.

Tom McKillop (58)
Chief Executive
 Appointed as a Director 1 January 1996.
 Non-Executive Director of Lloyds TSB Group plc. Vice-President of the European Federation of Pharmaceutical Industries and Associations. Pro-Chancellor of the University of Leicester. Chairman of the British Pharma Group and the North West Science Council.

Claes Wilhelmsson (62)
Executive Director, Research and Development
 Appointed as a Director 6 April 1999.

Jonathan Symonds (42)
Executive Director and Chief Financial Officer
 Appointed as a Director 1 October 1997.
 Also has overall responsibility for information services. Non-Executive Director of QinetiQ Group plc. Member of the Accounting Standards Board's Urgent Issues Task Force.

Åke Stavling (57)
Executive Director, Business Development
 Appointed as a Director 6 April 1999.
 Also has overall responsibility for corporate strategy.

Lars Ramqvist (63)*
Non-Executive Director and Chairman of the Remuneration Committee
 Appointed as a Director 6 April 1999.
 Formerly a Director of Astra AB (appointed 17 May 1994). Chairman of Telefonaktiebolaget LM Ericsson, Volvo AB and Skandia Insurance Company Ltd. Non-Executive Director of Svenska Cellulosaaktiebolaget (SCA). Member of the Royal Swedish Academy of Sciences, the Royal Swedish Academy of Engineering Sciences and the European Round Table of Industrialists.

Jane Henney (54)
Non-Executive Director
 Appointed as a Director 24 September 2001. Senior Scholar, Association of Academic Health Centers, Washington DC. Commissioner of Food and Drugs 1998-2001 and Deputy Commissioner for Operations 1992-1994, US Food and Drug Administration. Deputy Director, US National Cancer Institute 1980-1995. Non-Executive Director of AmerisourceBergen Corporation. Member of the Board of Trustees of the Commonwealth Fund and the Scripps Research Institute. Member of the Medical and Scientific Advisory Board of MPM Capital.

Erna Möller (61)*
Non-Executive Director
 Appointed as a Director 6 April 1999.
 Formerly a Director of Astra AB (appointed 15 May 1995). Executive Director of the Knut and Alice Wallenberg Foundation. Professor of Clinical Immunology and Member of the Nobel Assembly, Karolinska Institute. Member of the Royal Swedish Academy of Engineering Sciences.

Sir Peter Bonfield CBE, FREng (57)*‡
Non-Executive Director
 Appointed as a Director 1 January 1995.
 Chief Executive of British Telecommunications plc 1996-2002.
 Vice-President of The British Quality Foundation.

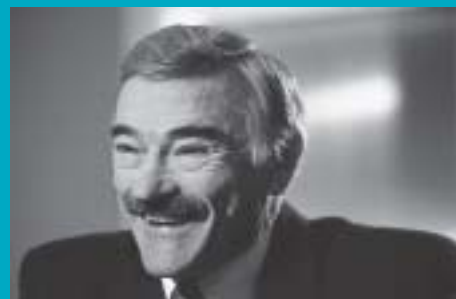
Marcus Wallenberg (45)#
Non-Executive Director
 Appointed as a Director 6 April 1999.
 Appointed as a Director of Astra AB 18 May 1989. President and Chief Executive Officer of Investor AB. Non-Executive Vice-Chairman of Saab AB and Telefonaktiebolaget LM Ericsson. Non-Executive Director of Scania AB, Stora Enso Oyj and the Knut and Alice Wallenberg Foundation.

Karl von der Heyden (65)#
Non-Executive Director and Chairman of the Audit Committee
 Appointed as a Director 1 October 1998.
 Non-Executive Director of Federated Department Stores Inc., ARAMARK Inc. and Fort Point Partners Inc.

Dame Bridget Ogilvie (63)#
Non-Executive Director
 Appointed as a Director 1 January 1997.
 Non-Executive Director of the Manchester Technology Fund Limited. Chairman of the Medicines for Malaria Venture, the Committee on the Public Understanding of Science (Copus) and the Governing Body of the Institute of Animal Health. Trustee of the Science Museum, the National Endowment for Science, Technology and the Arts (NESTA) and Cancer Research UK.

Other Officers of the Company at 31 December 2001 included members of the Senior Executive Team, as set out on page 28 and:

Graeme Musker
Group Secretary and Solicitor
 Appointed as Company Secretary 6 June 1993.



‡ Member of the Nomination Committee
 * Member of the Remuneration Committee
 # Member of the Audit Committee

Directors' Report

The Board in 2001

Details of the Board appear on pages 26 and 27. Sir David Barnes retired from the Board on 26 April 2001. Dr Jane Henney was appointed as a Non-Executive Director with effect from 24 September 2001.

Re-election of Directors

All of the Directors retire under Article 65 of the Articles of Association and all, with the exception of Lars Ramqvist, are presenting themselves for re-election at the Annual General Meeting on 25 April 2002. All of the Directors presenting themselves for re-election are recommended for re-election. Lars Ramqvist will retire from the Board with effect from the date of the Annual General Meeting.

Principal activities

AstraZeneca PLC (the Company) is the holding company for a group of subsidiaries (the Group) whose principal activities are described in the Operational and Financial Reviews, which are incorporated in this report by reference. Principal subsidiaries, joint ventures and associates and their locations are given on page 100.

Dividends

The Company's dividend for 2001 of \$0.70 (49.3 pence, SEK7.45) per Ordinary Share amounts to \$1,225 million.

Corporate governance

Throughout 2001, other than as set out in this report, the Company has applied all of the principles of good governance contained in Section 1 of the Combined Code published by the Hampel Committee on Corporate Governance and appended to the Listing Rules of the UK Listing Authority.

Other than as set out in this report, the Company has also complied throughout the accounting period with the Code provisions set out in Section 1 of the Combined Code.

Directors and organisation

The Board is responsible for the Company's objectives and policies and stewardship of the Company's resources. It concentrates mainly on strategy, financial performance and critical business issues and normally meets six times a year. Executive Directors have specific remits and areas of responsibility which are shown on page 26. The differing roles of Executive Directors and Non-Executive Directors are clearly delineated, both having fiduciary duties towards shareholders. However, Executive Directors have direct responsibility for business operations whereas the Non-Executive Directors have a responsibility to bring independent, objective judgement

to bear on Board decisions. There is an established and transparent procedure for appointments of new directors to the Board which is operated by the Nomination Committee. All of the Directors retire at each Annual General Meeting and may offer themselves for re-election by shareholders.

The Chief Executive, Tom McKillop, has delegated authority from, and is responsible to, the Board for directing and promoting the profitable operation and development of the Company, consistent with the primary aim of enhancing long term shareholder value. He is obliged to refer certain major matters (defined in the formal delegation of the Board's authority) back to the Board.

The Chief Executive has established and chairs the Senior Executive Team. While the Chief Executive retains full responsibility for the authority delegated to him by the Board, the Senior Executive Team is the vehicle through which he exercises that authority in respect of the Company's businesses (including Salick Health Care, Astra Tech and Marlow Foods). The other members of the Senior Executive Team are Åke Stavling, Jonathan Symonds, Claes Wilhelmsson (all Executive Directors); Bruno Angelici, Executive Vice-President, International Sales and Marketing; David Brennan, Executive Vice-President, North America and President and CEO, AstraZeneca LP (succeeding Carl-Gustaf Johansson who retired from that role at the end of June 2001); John Patterson, Executive Vice-President, Product Strategy and Licensing; Barrie Thorpe, Executive Vice-President, Operations; and Tony Bloxham, Executive Vice-President, Human Resources (succeeding Gunnar Christiani who retired from that role at the end of August 2001). The Senior Executive Team normally meets once a month to review all major business issues and decisions other than those considered to be of a size or importance to require the attention of, or which are reserved to, the Board.

The Chief Executive is responsible to the Board for the management and performance of the Company's businesses within the framework of Company policies, reserved powers and routine reporting requirements. The roles of the Board, the Chairman, the Deputy Chairman, the Chief Executive, the Senior Executive Team and their key committees are documented, as are the Company's delegated authorities and reserved powers, the means of operation of the business and the roles of corporate functions.

Directors' remuneration

The Company's remuneration policy is described in the Report of the Board on Remuneration of Directors on pages 31 to 32. At the Annual General Meeting on 25 April 2002, shareholders will have the opportunity to vote on the Report.

Relations with shareholders

The Company has frequent discussions with institutional shareholders on a range of issues affecting its performance. These include meetings following the announcement of the annual results with the Company's largest institutional shareholders on an individual basis. In addition, the Company responds continually to individual ad hoc requests for discussions from institutional shareholders.

All shareholders, including private investors, have an opportunity to put questions to members of the Board on matters relating to the Company's operation and performance at the Annual General Meeting.

Internal control and risk management

In its financial reporting to shareholders and other interested parties by means of annual and quarterly performance reports, the Board aims to present a balanced and understandable assessment of the Company's financial position and prospects.

Each area of business is subject to an annual budget and target-setting process including forecasts for the following two years together with a sensitivity and risk analysis, quarterly updates of the forecast for the current year and regular reporting. Key business priorities are cascaded through the organisation and form part of the basis for the Company's employee incentive plans.

Performance reviews are undertaken in each part of the business at least once a year. The Company's quarterly business performance management system has moved away from the use of predominantly financial performance measures and is now based on a broader range of measures that link directly to the achievement of key business priorities. All material capital investments must be submitted for approval with supporting information. Treasury operations are centralised, operate within defined limits and are subject to regular reporting requirements and audit reviews.

The Board has overall responsibility for the Company's system of internal control which aims to safeguard shareholders' investments and the Company's assets, ensure that proper accounting records are maintained and that the financial

information used within the business and for publication is reliable. The system is designed to provide reasonable assurance of effective operations and compliance with laws and regulations, although any system of internal control can only provide reasonable, not absolute, assurance against material misstatement or loss.

The Company has in place a range of procedures to monitor and control the risks associated with the achievement of its objectives. It has formed a Risk Advisory Committee comprised of representatives from each business function. The role of the Committee is to assist senior management to identify and assess the main risks faced by the Company's business in a co-ordinated manner, to assess, identify and document the Company's risk profile and to ensure that the business agenda is geared towards critical business issues. It reports to the Senior Executive Team.

The members of the Audit Committee during 2001 were Karl von der Heyden (Chairman of the Committee), Dame Bridget Ogilvie and Marcus Wallenberg. They are all Non-Executive Directors. The Committee met four times during 2001 and is scheduled to meet on four occasions in 2002.

The remit of the Audit Committee is to review and report to the Board on the annual and other published financial reporting carried out by the Group, the accounting policies of the Group, the scope and audit programmes of the Company's internal and external auditors and any material issues arising from these audits and the effectiveness of the Group's systems of financial reporting and internal financial controls and the framework for risk management, with particular emphasis on financial risks. The Committee is also responsible for the appointment of the Company's chief internal auditor and recommends to the Board the appointment of the external auditor and the level of its audit and non-audit remuneration.

The Audit Committee has received and considered reports on the effectiveness of the Company's system of internal financial control. These include an annual assessment of internal financial control from the internal audit function, reports from the external auditor on matters identified in the course of its statutory audit work and management assurance of the maintenance of control. The latter is based on an annual 'letter of assurance' by which responsible managers confirm the adequacy of their systems of internal financial and non-financial control, their compliance with Company policies, local laws and regulations and report any control weaknesses identified in the past year.

Since the publication in September 1999 by the Institute of Chartered Accountants in England and Wales of the Turnbull Report, 'Internal Control: Guidance for Directors on the Combined Code', the Directors have periodically reviewed the effectiveness of the Group's system of non-financial controls, including operational and compliance controls, risk management and the Company's high level internal control arrangements. The Directors believe that the Company maintains an effective embedded system of internal control and complies with the Turnbull Report guidance.

It remains the policy of the Company that all of its subsidiaries and their employees observe high standards of integrity and act with due skill, care, diligence and fairness in the conduct of business. The Company's management recognises that such standards make a significant contribution to the overall control environment and seeks, by its words and actions, to reinforce them throughout the business. In particular, all employees are required to comply with the letter and spirit of the AstraZeneca Code of Conduct and with the detailed standards issued in support of it.

Non-compliance with the Combined Code

The items in the Combined Code with which the Company did not comply in full throughout the period are the appointment of a senior Non-Executive Director and the notice period of service contracts. The reasons for non-compliance are stated below.

To date, members of the Board have not considered that the appointment of a senior Non-Executive Director would enhance the manner in which they discharge their duties.

The service contracts of Executive Directors normally provide for a notice period of two years. In the case of a number of Directors who were formerly employed by Astra AB, this has involved a reduction in the notice period to which they were previously entitled. It is not currently proposed that notice periods should be reduced further for existing Executive Directors. However, for new Executive Directors, although the initial notice period may be for a longer period, it is the Board's intention that it should be reduced to one year subsequently. The Board recognises that market conditions may not make this easy to achieve in the near term and the Board has retained the flexibility to offer whatever is necessary to make appropriate new appointments.

Going concern

The Directors have a reasonable expectation that the Company and its subsidiaries have adequate resources to continue in operational existence for the foreseeable future and therefore continue to adopt the going concern basis in preparing the accounts.

Auditor

A resolution will be proposed at the Annual General Meeting on 25 April 2002 for the re-appointment of KPMG Audit Plc, London as auditor of the Company.

Purchase of own shares

At the Annual General Meeting, the Company will be seeking a renewal of its current permission from shareholders to purchase its own shares.

The Company's stated distribution policy contains both a regular dividend cash flow and a share repurchase component to give the Company more flexibility in managing its capital structure over time. During 2001, in line with this policy, the Company purchased for cancellation 23.5 million of its own Ordinary Shares with a nominal value of \$0.25 each for an aggregate cost of \$1,080 million. This number of shares represents 1.3% of the Company's total issued share capital.

Allotments

Changes in the Company's Ordinary Share capital during the year, including allotments of shares under the Company's share plans, are given in Note 40 to the Financial Statements.

Political donations and expenditure

Following the coming into effect of the relevant provisions of the Political Parties, Elections and Referendums Act 2000 (the Act), shareholder authority is required for political donations to be made or political expenditure to be incurred by the Company or its subsidiaries in the European Union. Neither the Company nor its subsidiaries made any donations or incurred any expenditure in 2001 in the European Union in respect of which shareholder authority or disclosure in this report is required under the Act. Neither the Company nor its subsidiaries intend to make any such donations or incur any such expenditure in the foreseeable future. However, the Act defines 'political organisation' widely and, for example, interest groups or lobbying organisations concerned with the review of government policy or law reform may be caught by the definition. To enable the Company to continue to support such organisations without inadvertently breaching the Act, a resolution will be proposed at the Annual General Meeting on 25 April 2002

Directors' Report (continued)

authorising the Company to make donations or incur expenditure up to an aggregate limit of \$150,000.

In 2001, AstraZeneca's US legal entities made contributions amounting in aggregate to \$115,000 to state and national political party committees and to campaign committees of various state candidates affiliated with the major parties. These contributions were made only where allowed by state and federal law, American nationals exercised decision-making over the contributions and the funds were not provided or reimbursed by any non-US corporation.

Payment of suppliers

It is not Company policy formally to comply with the Confederation of British Industry's code of practice on the prompt payment of suppliers. It is, however, Company policy to agree appropriate payment terms with all suppliers when agreeing the terms of each transaction, to ensure that those suppliers are made aware of the terms of payment and, subject to their compliance, abide by the terms of payment. The total owed by the Company's subsidiaries to trade creditors at the balance sheet date was equivalent to 61 days' average purchases. No equivalent disclosure is provided in respect of the Company as it has no external creditors.

Employee involvement

The Company maintains an open management style and involves its employees both in daily decisions which affect them and longer-term matters. The Company is fully committed to keeping all of its employees informed about their work unit and the wider business, as well as discussing the implications of major business changes and other relevant matters. In line with legal requirements and cultural standards, more formal national and business level employee consultation arrangements exist in some countries, including the UK. A forum for employee consultation at European level, chaired by the Chief Executive, was introduced in 1995. Details of employees' share plans appear in Note 33 to the Financial Statements. The Company has a variety of constructive relationships with trade unions across its worldwide operations including formal recognition and active dialogue where appropriate.

Equal opportunities

The Company believes that every employee should be treated with the same respect and dignity. It values the rich diversity and creative potential of people with differing backgrounds and abilities and encourages a culture of equal opportunities in which personal success depends on personal merit and performance. It is Company policy that there should be no discrimination against any person for any reason that is not relevant to the effective performance of their job. All judgements about people for the purposes of recruitment, development and promotion are made solely on the basis of their ability and potential in relation to the needs of the job. Every manager is responsible for implementing this policy.

Employment of people with disabilities

It is Company policy that people with disabilities should have the same consideration as others with respect to recruitment, retention and personal development. Depending on their skills and abilities, people with disabilities enjoy the same career prospects as other employees and the same scope for realising potential. The Company also takes all reasonable steps to ensure that its working environments can accommodate special needs.

Nomination Committee

Following the retirement of Sir David Barnes from the Board on 26 April 2001, the members of the Nomination Committee are now Percy Barnevik (Chairman of the Committee), Håkan Mogren and Sir Peter Bonfield.

The remit of the Nomination Committee is, primarily, to make proposals to the Board for any new appointments as Directors of the Company.

Report of the Board on Remuneration of Directors

At the Annual General Meeting on 25 April 2002, shareholders will have the opportunity to vote on the Report.

Remuneration Committee

The members of the Remuneration Committee during 2001 were Lars Ramqvist (Chairman of the Committee), Erna Möller and Sir Peter Bonfield. They are all Non-Executive Directors of the Company, independent and have no personal financial interest in matters to be decided, no potential conflicts of interest arising from cross-directorships and no day-to-day involvement in running the Company.

The remit of the Remuneration Committee is, among other things, to recommend for decision by the Board the fundamental remuneration policy for the Company and to ensure the proper operation of all plans involving the Company's shares. More particularly, it makes specific proposals in respect of the remuneration packages of individual Executive Directors and the Company's most senior executives.

Overall remuneration policy and purpose

The Company is committed to developing a dynamic performance culture in which every employee champions the growth of shareholder value, is clear about the Company's objectives, knows how their work impacts on those objectives and that they will benefit from achieving high levels of performance.

With this vision in mind, the Remuneration Committee has reviewed remuneration policy. The Board has confirmed that the overall policy and purpose is:

- to attract and retain people of the quality necessary to sustain the Company as one of the best pharmaceutical companies in the world; and
- to motivate them to achieve the level of performance necessary to create sustained growth in shareholder value.

In order to achieve this, remuneration policy and practice is designed:

- to closely align individual and team reward with business performance at each level;
- to encourage employees to perform to their fullest capacity;
- to encourage employees to align their interests with those of shareholders;
- to support managers' responsibility to achieve business performance through people and for them to recognise superior performance, in the short and longer-term;

- to be as locally focused and flexible as realistic;
- to be competitive and cost-effective in each of the relevant employment markets; and
- to be as internally consistent as realistic taking due account of market need.

Components of the remuneration package

The cost and value of the components of the remuneration package are considered as a whole and are designed:

- to ensure a proper balance of fixed and variable performance related components, linked to short and longer-term objectives; and
- to reflect market competitiveness taking account of the total value of all of the benefit components.

The benefit components contained in the total remuneration package are:

- annual salary – based on conditions in the relevant geographic market, with the provision to recognise, in addition, the value of individuals' sustained personal performance, resulting from their ability and experience;
- ad hoc rewards – special payments and other measures available to reward individuals and teams following a particular and outstanding business contribution;
- short term bonus – a lump sum payment related to the targeted achievement of identified business drivers and, where appropriate, personal performance goals, measured over a year within a specific plan;
- share participation – various plans provide the opportunity for employees to take a personal stake in the Company's wealth as shareholders; and
- other benefits such as holidays, sickness benefit and pensions which are cost-effective and compatible with the relevant national welfare arrangements.

The way in which these elements are combined and applied varies depending, for example, on market need and practice in various countries.

For Executive Directors, the individual components are:

- annual salary – the actual salary for each of the Executive Directors is determined on behalf of the Board by the Remuneration Committee; these salaries reflect the experience and sustained performance of the individuals to whom they apply, as judged annually by the Remuneration Committee, taking account also of market competitiveness;

- short term bonus – in respect of 2001, Executive Directors, other than the Deputy Chairman and the Chief Executive, were entitled to an annual bonus related to the achievement of both the targeted performance of earnings per share and the achievement of functional measures relevant to each Director's particular area of responsibility; the Deputy Chairman and the Chief Executive were entitled to bonuses related solely to the achievement of the targeted performance of earnings per share; the bonus payable for Executive Directors is on a scale of 0-100% of salary and 50% of salary is payable for the achievement of target business performance; 80% of the bonus relates to the achievement of the earnings per share target and 20% to the individual measures;

- longer-term bonus – Executive Directors are also rewarded for improvement in the share price performance of the Company over a period of years by the grant of share options; the grant of options under the AstraZeneca Share Option Plan is supervised by the Remuneration Committee which also determines whether any performance targets will apply to the grant and/or exercise of options; the exercise of options previously granted under the Zeneca 1994 Executive Share Option Scheme is currently subject to the performance condition that before any exercise, earnings per share must grow by at least the increase in the UK retail prices index plus 3% per annum over a continuous three year period following grant; and
- pension and other benefits – normally, UK Directors are members of the AstraZeneca pension fund which provides a pension of up to two-thirds of basic salary on retirement at age 62 with at least 20 years' service; the scheme also provides for dependants' pensions and lump sums on death in service.

Other customary benefits (such as car and fuel, health benefits and savings-related share option scheme) are made available as required.

Executive Directors' special pension arrangements

In respect of UK Directors whose pensionable earnings are capped by the earnings limit imposed by the Finance Act 1989, money purchase funded unapproved retirement benefit schemes are available. Currently, only Jonathan Symonds is affected by this limit. The Company has agreed to pay 50% of basic salary in excess of the earnings limit with the intention of providing equivalence of

Directors' Report (continued)

benefits with non-capped UK Directors. If this does not provide equivalence, then the Company has agreed to make up the difference.

Normally, Swedish Directors participate in the collectively bargained ITP pension plan, which provides pensions, dependants' pensions and lump sums on death in service. In respect of those Swedish Directors, namely Håkan Mogren, Åke Stavling and Claes Wilhelmsson, whose pensionable earnings are in excess of the earnings limit imposed by the Communal Tax Law (Kommunalskattelagen), supplementary pension commitments are made. The Company has agreed to pay 70% of pensionable salary from age 60 to age 65 and 50% of such earnings from age 65. The ITP provisions are included in this additional commitment.

Note 35 to the Financial Statements sets out the information required by the Listing Rules of the UK Listing Authority relating to Directors' pension entitlements.

Directors' emoluments in 2001

The emoluments of Directors of the Company are set out in Note 35 to the Financial Statements.

Directors' interests in shares

Full details of Directors' interests in Ordinary Shares of the Company and its subsidiaries (including options), together with options granted and exercised in 2001 are set out in Note 34 to the Financial Statements.

As stated above, the Remuneration Committee determines the grant of options under the AstraZeneca Share Option Plan (the Plan) and ensures that, on every occasion before the grant of any option, the performance of the Company and the performance and contribution of each participant is fully taken into account when determining the number of shares to be put under option and the number of options to be granted. In respect of the grants of options under the Plan in March and August 2001, the Remuneration Committee considered the overall performance of the Company against a range of key performance indicators, including the achievement of business targets, the launch of new products such as *Nexium* and *Symbicort*, the strong progress made by the development portfolio and the successful strategic steps taken to focus the Company as a pure pharmaceutical company (such as the demerger of Zeneca Agrochemicals and the creation of Syngenta AG and other

divestments) and concluded a grant of options was justified. The Remuneration Committee also received assurances from each member of the Senior Executive Team that the participants for whom they were recommending a grant of options had achieved the appropriate level of performance.

Service contracts

Each Executive Director normally has a service contract with a notice period of two years subject to retirement, normally, at the age of 62. In line with customary arrangements in Sweden, Claes Wilhelmsson's service contract provides for a normal retirement age of 65. At the time of the Annual General Meeting on 25 April 2002, the unexpired term of Executive Directors' service contracts will be a maximum of two years. None of the Non-Executive Directors has a service contract.

External appointments

With the specific approval of the Board in each case, Executive Directors may accept external appointments as non-executive directors of other companies and retain any related fees paid to them.

On behalf of the Board
G H R Musker
 Group Secretary and Solicitor
 31 January 2002

Financial Review

Introduction

The purpose of the Financial Review is to provide understanding and analysis of our results for the year 2001 and of the progress made since 2000. It also provides details of material changes in financial performance between 2000 and 1999. The Financial Review describes:

- Business background; page 33
- Results of operations 1999-2001 in tabular form; page 34
- Results of operations – analysis of year to 31 December 2001; page 34
- Results of operations – analysis of year to 31 December 2000; page 36
- Liquidity and capital resources 1999-2001; page 38
- Economic and monetary union (EMU); page 39
- US GAAP information 1999-2001; page 39
- New accounting standards; page 40
- Treasury policy; page 40
- International Accounting Standards; page 42.

Business background

Following the demerger of the Zeneca Agrochemicals business on 13 November 2000 and the disposal of the Zeneca Specialties business on 30 June 1999, our continuing operations are focused on prescription pharmaceuticals with more than 97% of our sales being made in that sector. We conduct our business with a view towards long term growth of profits and shareholder value, which is largely dependent on a flow of new products and product enhancements deriving from substantial and continuing investment in research and development (R&D).

Our operating results can be affected by a number of factors, the most important of which are the success of new product research and launches, the expiry of patents and the impact of generic competition and the regulatory and pricing environment. These factors affect both our long term development and short term performance. Further information about these and other risk factors is given on page 123.

Sales of pharmaceutical products tend to be relatively insensitive to general economic circumstances in the short to medium term as they are more directly influenced by medical needs and are financed by health insurance schemes or national healthcare budgets. Patent expiries can also have a significant impact on the results of pharmaceutical companies. For us, the expiration of patents relating to *Losec* (*Prilosec* in the US), *Zestril*, *Nolvadex* and *Plendil* in different markets are expected to affect our operating results in the future significantly. In 2001 *Losec* accounted for 34.5% of our sales. Launch and roll-out of our new products, such as *Nexium*, *Crestor*, *Symbicort* and *Iressa* are likely to have a positive impact in reducing the effect of *Losec* (and other) patent expiries. The continued success of *Nexium* will depend, among other things, on the rate of customer uptake of the product and the timing and pricing of generic omeprazole availability, particularly in the US. In December 2001 the trial commenced of patent infringement proceedings against four groups of companies planning to introduce generic omeprazole in the US. We believe these companies have infringed various of our patents including those covering the complex processes of formulation of omeprazole. *Crestor*, which has the potential to be a significant treatment for patients with high levels of cholesterol, is expected to enter the competitive 'superstatin' market with claims of superior efficacy to the currently marketed products in the class as well as a comparable tolerability and safety profile.

Pharmaceutical companies will continue to be affected by both competition and pressure to contain healthcare expenditure in a number of countries, including the US, as governments and other bodies continue to seek to control costs. Results may also be affected during any one period by buying patterns for products (for example, speculative buying by wholesalers) and launch costs for megabrands.

Our largest market is the US, which accounted for about 53% of sales (by customer location) in 2001, while Europe (including the UK) accounted for 32% of sales. The UK and Sweden are our most important manufacturing locations and were also the source of exports of approximately \$5.7 billion in 2001 to external customers and to our subsidiaries worldwide. AstraZeneca conducts business in over 100 countries. It operates through 246 subsidiaries worldwide all of which are consolidated in the Group Financial Statements.

The US dollar is the primary currency in which we conduct our business. Accordingly, we operate as a US dollar based entity and present our financial statements in US dollars. The fluctuation of currencies against the US dollar consequently causes variation in our results reported in US dollars. Our policy, where appropriate, is to seek to reduce the impact of exchange rate movements on our transactional exposures through the purchase of forward foreign exchange contracts or options. We also seek to reduce the impact of exchange rate movements on our long term economic position by investing surplus liquidity in US dollar denominated deposits. Where we believe it appropriate to borrow funds, we structure debt to reflect the currencies of our underlying asset base.

AstraZeneca sales

	2001 \$m	2000 \$m	1999 \$m
Continuing operations	16,480	15,804	15,134
Agrochemicals (discontinued)	–	2,299	2,657
Specialties (discontinued)	–	–	654
	16,480	18,103	18,445

Financial Review (continued)

Our business requires high levels of investment in R&D, licensing, the launch of new products and the enhancement of existing products. Our products and related intellectual property are amongst our most valuable assets. We conduct initial broad-range research, including collaborations with other parties, targeted exploratory development, regulatory activities and commercialisation including individual product support in the market.

Excluding the effects of currency exchange rates and exceptional items, our R&D expenditure in support of our continuing operations increased by 12% in 2001 to \$2,687 million. These R&D costs, together with product launch costs, are likely to remain a significant feature of our cost base as new products are successfully brought to market.

In addition to our pharmaceutical business, we conducted operations in previous years in the agrochemical and speciality chemical sectors until the divestment of these businesses in 2000 and 1999, respectively. Mainly as a result of these activities, there are environmental liabilities attributable to past events at some currently or formerly owned, leased and third party sites in the US, a number of which have now been settled. Further information relating to remaining environmental exposures is included in Note 36 to the Financial Statements.

Results of operations

The tables on this and the previous page show our sales and operating profit before exceptional items.

Year to 31 December 2001

Results described in this section exclude the effects of exchange rate movements (unless noted otherwise). Comparisons with the previous year are in terms of our continuing operations.

In 2001, sales increased by 8% to \$16,480 million from \$15,804 million in 2000. Operating profit before exceptional

items grew by 6%. The strength of the US dollar reduced reported sales and profits by 4% and 2%, respectively. Earnings per share before exceptional items grew by 11% to \$1.77. Excluding the Gastrointestinal area, sales growth for 2001 was 12% based on strong results from the Respiratory (up 17%), Oncology (up 16%) and CNS (up 48%) areas. Gastrointestinal sales were up 2% in the year, with *Losec* sales outside of the US growing by 4%. In the US, *Losec/Prilosec* sales decreased by 13%, offset by strong *Nexium* performance leaving gastrointestinal sales 2% lower than 2000.

Our business strategy is based on the premise that long term sales growth drives shareholder value. Achievement of this objective is supported by a vibrant and productive R&D organisation together with strong sales and marketing capabilities. Since merger we have demonstrated that we have the product pipeline and the appropriate strength in sales and marketing. Our financial strategy is consistent with this and we invest in the necessary R&D resources and expand our sales and marketing capacity where necessary. We are aware that we operate in an environment where unlimited incremental investment is not acceptable. Accordingly, we exercise stringent prioritisation of resources in both R&D and sales, shifting support from mature to new products and realising the benefits of our synergy programme.

Gastrointestinal

Gastrointestinal sales grew by 2% to \$6,308 million.

Nexium sales in the US totalled \$456 million and in December 2001 accounted for a 16.3% share of new prescriptions in the US PPI market after only nine months¹. In the rest of the world, sales were \$124 million – *Nexium* has now been launched in 38 countries and launches in a further

49 countries (including France, Italy and Belgium) are planned for 2002.

Losec sales fell by 7% to \$5,684 million. The US decline of 13% was caused largely by reduced stocks of the product being held by wholesalers but also by the switch of prescriptions to *Nexium*. This was offset, in part, by an overall 4% sales increase elsewhere. Performance was notably strong in those markets where *Nexium* is yet to be launched, such as France (up 17%) and Italy (up 45%). Japan grew by 85%, based on the long term indication and the launch of the 10mg tablet.

Cardiovascular

Cardiovascular sales grew by 6% to \$3,537 million.

Although the underlying prescription demand for *Zestril* in the US increased by 5%, uneven phasing of wholesaler shipments as well as higher rebates contributed to a worldwide reduction in sales of 6% to \$1,097 million.

Prescriptions for *Seloken/Toprol-XL* increased by 32% in the US, aided by the new indication for congestive heart failure launched earlier in the year. This led to a 47% increase in US sales value and 28% worldwide growth to \$722 million. *Atacand* has continued to perform well across all major markets with sales outside of the US growing by 58%. *Atacand* sales increased by 29% in the US and prescriptions by 47%. Global sales were \$414 million.

Plendil worldwide sales increased by 2% to \$480 million; growth in the US of 6% was offset by declines in Europe and the rest of the world of 2% and 4%, respectively. In the US, paediatric exclusivity expired in December 2001, although we are engaged in ongoing formulation patent litigation against two generic manufacturers.

AstraZeneca operating profit before exceptional items

	2001 \$m	2000 \$m	1999 \$m
Continuing operations	4,156	3,984	3,570
Agrochemicals (discontinued)	–	346	267
Specialties (discontinued)	–	–	71
	4,156	4,330	3,908

Respiratory

Respiratory sales grew by 17% to \$1,556 million.

Pulmicort sales increased by 80% in the US market as a result of the strong performance of *Pulmicort Respules*, which more than offset the 4% decline in the rest of the world. Total *Pulmicort* sales were \$775 million, an increase of 14%.

Rhinocort Aqua increased its share of the US aqueous intranasal steroid segment of the rhinitis market to 11.6% in December 2001, up from 6.8% in the previous year. This contributed towards the growth of *Rhinocort* worldwide of 25% to \$269 million.

Symbicort has now been launched in the major markets in Europe and 23 countries in total. Rapid market penetration has been achieved in many of these markets in a matter of weeks after launch. Prospects for further growth will be enhanced by regulatory submissions for a COPD indication in the European Union in the first quarter of 2002. Sales for the year were \$83 million.

Oncology

Oncology sales grew by 16% to \$2,146 million.

Casodex is the world's leading anti-androgen for the treatment of prostate cancer. Strong growth was reported in all major markets. Sales for the full year increased 27% in the US, 43% in Europe and 56% in Japan to \$569 million worldwide. Approvals for the use of *Casodex* 150mg tablets for the treatment of early stage prostate cancer have been granted in 11 markets to date; the sNDA for this important new indication was submitted to the US FDA on 20 December 2001.

Arimidex remains the leading product in the aromatase inhibitor market. Sales in the US were up 15%, broadly in line with the trend in total *Arimidex* prescriptions. Sales outside the US grew by 34%, on good growth in Europe (up 17%) and excellent performance in Japan since its launch in February 2001. Worldwide sales reached \$191 million.

Nolvadex sales increased by 12% to \$630 million driven by strong growth in the US where sales reached \$474 million, up 18%. Patent expiry in the US is in August 2002, although the product may be eligible for paediatric extension.

Central Nervous System

CNS sales rose by 48% to \$999 million.

In 2001 sales of *Seroquel* in the US were up 51% to \$568 million, in line with a strong growth in prescriptions. Market

Key products sales by therapeutic area (2001 and 2000)

	% of AstraZeneca total sales (continuing operations)	2001 \$m	2000 \$m	%CER growth
Gastrointestinal	38	6,308	6,322	+2
<i>Losec (Prilosec)</i>	34	5,684	6,260	-7
<i>Nexium</i>	4	580	17	*
Cardiovascular	22	3,537	3,477	+6
<i>Zestril</i>	7	1,097	1,188	-6
<i>Seloken/Toprol-XL</i>	4	722	577	+28
<i>Tenormin</i>	2	404	471	-7
<i>Plendil</i>	3	471	480	+2
<i>Atacand</i>	3	414	293	+46
Respiratory	9	1,556	1,372	+17
<i>Pulmicort</i>	5	775	705	+14
<i>Rhinocort</i>	2	269	221	+25
<i>Accolate</i>	1	146	152	-2
<i>Bricanyl</i>	–	107	125	-8
<i>Oxis</i>	1	127	116	+15
<i>Symbicort</i>	–	83	–	*
Oncology	13	2,146	1,929	+16
<i>Zoladex</i>	4	728	734	+5
<i>Nolvadex</i>	4	630	576	+12
<i>Casodex</i>	3	569	433	+37
<i>Arimidex</i>	1	191	156	+27
Central Nervous System	6	999	685	+48
<i>Seroquel</i>	4	700	424	+67
<i>Zomig</i>	2	277	237	+20
Pain Control & Infection	8	1,330	1,376	+1
<i>Diprivan</i>	3	465	507	-4
<i>Xylocaine</i>	1	212	238	-5
<i>Merrem</i>	1	227	170	+40
Others	4	604	643	+3

* as recently launched, growth rates not meaningful

share in the US is now 16% of new prescriptions. With the successful launch in Japan and continued growth in Europe, sales outside the US grew to \$132 million.

Sales of *Zomig* increased by 20% to \$277 million. The August 2001 launch in Japan and good growth in Europe, particularly for *Zomig Rapimelt*, were the key contributors. In the US, the *Zomig* share of new prescriptions increased above 15%, aided by the launch of *Zomig ZMT* 2.5mg. The 5mg tablet of *Zomig* is the leading strength in the US market

where the *Zomig ZMT* 5mg tablet was launched in October 2001.

Pain Control and Infection

Merrem enjoyed good growth in Europe where sales were up 21% and continued market share gains in the US led to strong growth for the year. *Diprivan* sales reduced by 4% in the US, a trend reflected elsewhere except for Japan where sales increased by 21% to \$51 million. Worldwide sales reduced by 4% to \$465 million.

¹IMS Health, December 2001

Financial Review (continued)

Others

Salick Health Care sales grew by 10% to \$194 million; Astra Tech sales rose by 19% to \$126 million driven by growth in Europe, the major market for the business. Marlow Foods saw a strong performance, with sales growing by 22% to \$103 million.

Geographic analysis

Sales growth in the US was led by the successful launch of *Nexium*, which generated \$456 million in just nine months on the market. Excluding sales of *Losec/Prilosec*, sales growth was 28% for the full year, with strong performances from *Seroquel*, *Toprol-XL* and *Pulmicort*.

Double digit growth in France and Italy contributed to good performance in Europe. This performance was offset by declines in Sweden and the UK. Product highlights in the region included the launches of *Nexium* and *Symbicort*, as well as good growth from *Atacand*, *Casodex* and *Seroquel*.

Strong growth in *Losec* (up 85%) and *Casodex* (up 56%) and the launches of *Seroquel*, *Arimidex* and *Zomig* led to excellent results in Japan.

Research and development

R&D expenditure totalled \$2,687 million for 2001, an increase of \$67 million from 2000. The level of the cost was reduced due to the effect of lower sterling and kronor exchange rates and the synergy and integration activities which realised cost benefits of approximately \$180 million for the year. Investment in facilities continued, particularly in Boston, US and Bangalore, India.

Operating margin and retained profit

Operating profit before exceptional items grew by 6% to \$4,156 million.

In 2001 currency reduced operating profits by 2%. The adverse effect of the euro was partially offset by a favourable impact from our sterling and kronor cost base. If 2001 year end spot rates remain constant for 2002, we would estimate a 2-3% adverse impact on sales with a lower impact on earnings per share.

Operating margin for the year was 25.2% unchanged from 2000. Excluding the effect of the reclassification of \$120 million of distribution costs, cost of sales as a percentage of sales was broadly similar to 2000.

R&D costs were 16.3% of sales, down from 16.6% in 2000. Increases in R&D expenditure to support the megabrand launches were offset by currency benefits, particularly from the Swedish sites. Selling costs increased as a result of the new

product launches and field force expansion, particularly in the US, whilst general and administrative costs continued to be tightly controlled. Other operating income, which included gains from product rationalisation, increased to \$368 million for the full year (2.2% of sales).

During 2001, the merger related synergy and integration programme initiated in 1999 was completed, resulting in an exceptional charge of \$202 million. An exceptional profit of \$10 million on sale of fixed assets was recorded in the year. Further details of exceptional items can be found in the synergy and integration programme section below and in Note 5 to the Financial Statements.

Our 50% interest in the seeds company Advanta BV resulted in sales attributed to us of \$183 million. In 2001 we settled the dispute with our joint venture partner Koninklijke VanderHave Groep BV over certain aspects of the shareholders' agreement. AstraZeneca's share of assets and liabilities of the business is nil (2000 nil) following a charge for impairment of Advanta's assets in 2000.

We recorded net interest and dividend income of \$113 million compared with \$138 million in 2000. Falling rates had an adverse effect on the interest income. The 2000 figure was impacted by one-off exchange gains as discussed below. Exchange losses recognised in the current year amounted to \$12 million.

The taxation charge for continuing operations before exceptional items was \$1,153 million representing an effective rate of 27% (2000 29%). The total tax charge, including exceptional item effects and discontinued operations, was \$1,099 million compared to \$1,299 million in 2000.

We paid a first interim dividend for 2001 on 5 October 2001 of \$0.23 per Ordinary Share. A second interim dividend for 2001 of \$0.47 per Ordinary Share has been declared, which the Annual General Meeting will be asked to confirm as the final dividend. This, together with the first interim dividend, makes a total of \$0.70 for the year in line with the Group's dividend policy. The policy (in the absence of unforeseen circumstances) anticipates that dividends will be maintained at \$0.70 until earnings cover dividends by between two and three times; thereafter, dividends are intended to be grown in line with earnings.

In 2001, 23.5 million Ordinary Shares were repurchased (nominal value \$0.25 each) by the Company for cancellation, at a total cost of \$1,080 million.

Synergy and integration programme

Following completion of the merger in 1999, integration task forces were established to consolidate the operations of the newly merged Group, remove duplicate activities throughout the organisation and rationalise the number of facilities around the world. The synergy and integration costs in 2001 amounting to \$202 million represent the final charges and bring the total cost of the programme to \$1,388 million. The major elements of the year's charge were manpower related costs \$23 million, information systems integration costs \$48 million and external adviser costs \$70 million.

Actual cash expenditure in 2001 on synergy and integration costs was \$312 million bringing the total cash expenditure to 31 December 2001 to \$1,147 million. There is approximately \$130 million remaining to be spent.

The annual benefits which we expect to be delivered from the programme by the middle of 2002 amount in total to \$1.1 billion of which approximately two thirds will arise in selling, general and administrative expenses, one quarter in R&D and the remainder in production and distribution. Actual benefit achieved in 2001 was \$1 billion, giving total benefits to 31 December 2001 of over \$1.6 billion.

Year to 31 December 2000

All narrative in this section excludes the effects of exchange rate movements (unless noted otherwise).

Continuing operations

Sales for continuing operations were \$15,804 million compared to \$15,134 million in 1999, an increase of 8%. Operating profit before exceptional items increased by 14%. The strength of the US dollar reduced reported operating profits by 2% for the year. Earnings per share (before exceptional items) grew by 18%. The main contributors to turnover growth were continued strong sales of *Losec/Prilosec* and significant expansion for *Seroquel*, *Atacand* and *Casodex*.

The key growth products grew by 50% in aggregate, assisted by important life cycle initiatives. These included launches of *Atacand Plus/Atacand HCT*, *Casodex* for monotherapy of advanced prostate cancer, *Arimidex* for first line treatment of advanced breast cancer, *Zomig Rapimelt* tablets and a further 20 country launches for *Seroquel*. Sales growth overall slowed from the 17% achieved in 1999, having been affected by a more competitive gastrointestinal market in the US and generic competition on certain products and in certain markets and price rebates on certain mature products.

Gastrointestinal

Gastrointestinal sales grew by 9% to \$6,322 million driven by US *Prilosec* growth of 10%. Market share in the US anti-secretory market held steady at around 31% but continued to come under some pressure from new entrants within the proton pump inhibitors segment, which continues to grow at 21%. Strong sales of *Losec* in France (+20%) and Italy (+13%), more than offset a decline in sales in Spain and Germany (due to generic competition). With launches in 10 European markets, *Nexium* enjoyed an excellent start.

Cardiovascular

Strong market share growth continued, resulting in a sales increase of 6% to \$3,477 million.

Total US prescription share for *Zestril* remained competitive at 24%, with underlying prescription growth of nearly 10%. However, wholesaler inventory de-stocking and price rebates brought annual US sales growth down to 2%. *Atacand* showed continued strong growth in all markets. Sales increased by 82% to \$293 million. *Seloken* US market share rose to 18% from 13%. Worldwide sales were \$577 million, an increase of 13% on the previous year.

Plendil sales in the US were \$31 million higher than in the previous year, driven by a 10% increase in total prescriptions. Worldwide sales grew by 11%.

Respiratory

Respiratory sales grew by 10% to \$1,372 million.

In the US sales of *Pulmicort* increased by 76%. The successful launch of *Pulmicort Respules* as well as an increase of nearly 40% in prescriptions for the *Turbuhaler* drove this performance. Competitor inroads in the mature markets resulted in a more modest worldwide sales increase. *Accolate* sales decreased by 2%, the result of de-stocking and a declining prescription trend in the US, which more than offset the modest growth seen in other markets. *Rhinocort* sales have increased by 37% to \$221 million; performance benefited from the successful US launch of *Rhinocort Aqua*, which achieved a 7% share of its market. *Rhinocort NI* continues to be the US market leader. *Symbicort* received its first approval in Sweden. An 8% share of the inhaled steroid and fixed combination market was achieved in the four months following its launch in August 2000. Further European launches in the first half of 2001 will follow the December approval through the EU Mutual Recognition Procedure.

Oncology

Oncology sales grew by 12% to \$1,929 million.

Casodex sales increased by 31% to \$433 million with particularly strong performance in Japan. The monotherapy claim for locally advanced prostate cancer has now been launched in nine markets, with notable uptake seen in the UK and Sweden. Continued strong growth of *Arimidex* resulted in a worldwide increase of 19%, mainly the result of first line treatment use in the advanced breast cancer setting and overall market expansion. US sales of *Arimidex* were slightly behind the 14% increase in prescriptions. *Nolvadex* sales in the US showed limited growth as de-stocking masked 7% growth in prescriptions. *Zoladex* sales increased by 10% to \$734 million; strong growth was seen in the US due to good demand in the LHRH market and indications of an increase in market share.

Central Nervous System

Strong sales within the CNS sector continued, with growth of 56% to \$685 million.

Seroquel had an excellent year with growth at 85% to \$424 million. Growth was driven by steadily increasing market share in the US, where its share of new prescriptions exceeded 12% in December 2000. We are also beginning to see some contribution from the 20 new launches in 2000. *Zomig* sales advanced on continued market share gains, helped by the launch of *Zomig Rapimelt* tablets in 14 markets. Worldwide sales reached \$237 million, a growth of 31%.

Pain Control and Infection

The decrease in *Diprivan* sales (down by 14% to \$507 million) was due to increased generic competition. *Merrem* sales grew 18% to \$170 million helped by improved supply.

Others

Sales by Salick Health Care totalled \$176 million in 2000, down 15% from 1999 following restructuring of the business. Astra Tech sales at \$114 million in 2000 were 13% up on 1999. Although sales by Marlow Foods were slightly lower than in 1999 in dollar terms, at \$90 million, excluding the effect of exchange rate movements, sales increased by 3%, reflecting healthy volume growth.

Geographic analysis

In the US the growth rate was 11%, due to strong sales of *Prilosec*, *Seroquel* and *Toprol-XL*, as well as the launch of *Rhinocort Aqua* and *Pulmicort Respules*. Sales growth in Japan was ahead of the market, with growth driven by *Casodex*, *Zoladex* and *Diprivan*. In Europe, sales in Germany were affected by generic

competition and in the UK by price reductions, while strong demand was seen in France and Italy.

Research and development

R&D expenditure increased by 12% to \$2,620 million in 2000, up slightly as a percentage of sales to 16.6%. Continued strong progress was made across the discovery and development portfolio with 14 high quality candidate drugs introduced into development during 2000 and 152 projects in the pipeline. Capital investment continued with new research facilities being developed at Charnwood in the UK and Boston in the US.

Operating margin

Operating margin before exceptional items, increased to 25.2% compared to 23.9% in 1999. Cost of goods sold was lower as a proportion of sales and early delivery of synergy benefits made a valuable contribution to reducing the proportion of selling, general and administrative expenses. Synergy benefits were partially offset by the cost of the US field force expansion programme.

Group results (including discontinued operations)

Our sales for the year amounted to \$18,103 million compared to \$18,445 million in 1999, an increase of 2% at constant exchange rates. Our operating profit before exceptional items was \$4,330 million, an increase of 13% compared to 1999.

Zeneca Agrochemicals figures cover the period from 1 January 2000 to 13 November 2000, when the business was demerged through a distribution in specie of \$1,669 million. Zeneca Agrochemicals sales during this period amounted to \$2,299 million compared to \$2,657 million for the full year 1999. However, operating profit before exceptional items was \$346 million for the period compared to \$267 million for 1999. The improved performance during 2000 reflects some stabilisation of agricultural commodity prices in the first half of the year, economic improvements in Asia Pacific and Latin America, increased sales and cost savings following the restructuring activity initiated in previous years.

Exceptional items charged to operating profits in 2000 amounted to \$322 million for the cost of the continuing synergy and integration programme. Below operating profit, exceptional charges of \$137 million and \$150 million related respectively to the impairment of the value of our investment in Advanta BV and costs associated with the Zeneca Agrochemicals demerger. Net interest receivable was \$135 million compared to a net interest expense of \$4 million in 1999. Included in the net interest receivable were certain exchange gains amounting to \$46 million which are not expected to recur, the effect of which was

Financial Review (continued)

to increase earnings per share by 2 cents in 2000. The underlying improvement in the net interest position reflects our strong cash flow and the proceeds from the refinancing of Syngenta AG as part of the Zeneca Agrochemicals demerger.

The taxation charge for continuing operations in 2000 was \$1,192 million, representing an effective tax rate of 29% (1999 29.5%). The total tax charge, including discontinued businesses and exceptional items, was \$1,299 million compared to \$815 million in 1999.

The respective effective tax rates were 33.8% for 2000 and 41.6% for 1999.

Liquidity and capital resources

All data in this section is on an actual basis (unless noted otherwise).

Cash flow

In 2001 cash generated from operating activities before exceptional items amounted to \$4,130 million for the year (compared to \$4,992 million in 2000). The reduction is almost entirely attributable to the effects of the demerger of Zeneca Agrochemicals and one-off accelerated creditor settlement. After the 2000 final dividend and 2001 first interim dividend (\$1,236 million), capital expenditure and financial investment of \$1,543 million, exceptional item costs of \$368 million, tax payments of \$792 million and share issues and repurchases of \$994 million, net cash outflow before non-equity financing was \$691 million.

In 2000, a net cash flow of \$4,992 million was generated from operations before exceptional items (compared to \$4,699 million in 1999). This was augmented by \$909 million of net cash repayment from Syngenta AG on the demerger of the Zeneca Agrochemicals business. This cash was applied mainly to expenditure against the exceptional provisions (\$809 million), taxation (\$648 million), capital expenditure and financial investment (\$1,426 million), the acquisition of minority interests (\$167 million) and shareholders' dividends (\$1,220 million). The net cash inflow before management of liquid resources and financing amounted to \$1,648 million of which \$353 million was applied to share repurchases.

In 1999 net cash of \$4,699 million was generated from operations before exceptional items to which was added \$1,981 million of disposal proceeds (principally from the disposal of the Zeneca Specialties business). Expenditure on exceptional items totalled \$1,586 million, taxation \$1,020 million, capital expenditure and financial investment \$2,731 million and shareholders' dividends \$1,216 million. The net inflow before management of liquid resources was \$156 million.

Key products sales by therapeutic area (2000 and 1999)

	% of AstraZeneca total sales (continuing operations)	2000 \$m	1999 \$m	%CER growth
Gastrointestinal	40	6,322	5,957	+9
<i>Losec (Prilosec)</i>	40	6,260	5,909	+9
Cardiovascular	22	3,477	3,416	+6
<i>Zestril</i>	8	1,188	1,221	+1
<i>Seloken/Toprol-XL</i>	4	577	531	+13
<i>Tenormin</i>	3	471	509	-4
<i>Plendil</i>	3	480	452	+11
<i>Atacand</i>	2	293	171	+82
Respiratory	9	1,372	1,339	+10
<i>Pulmicort</i>	4	705	730	+5
<i>Rhinocort</i>	1	221	167	+37
<i>Accolate</i>	1	152	156	-2
<i>Bricanyl</i>	1	125	142	-6
<i>Oxis</i>	1	116	87	+48
Oncology	12	1,929	1,764	+12
<i>Zoladex</i>	4	734	686	+10
<i>Nolvadex</i>	4	576	573	+1
<i>Casodex</i>	3	433	340	+31
<i>Arimidex</i>	1	156	140	+19
Central Nervous System	4	685	449	+56
<i>Seroquel</i>	3	424	232	+85
<i>Zomig</i>	1	237	189	+31
Pain Control & Infection	9	1,376	1,508	-5
<i>Diprivan</i>	3	507	608	-14
<i>Xylocaine</i>	2	238	249	-3
<i>Merrem</i>	1	170	153	+18
Others	4	643	701	-5

We had net funds of \$2,867 million at 31 December 2001 (\$3,605 million at 31 December 2000).

Undrawn committed bank facilities at 31 December 2001 totalled \$0.8 billion with maturities ranging from 1 to 2 years. Our working capital is sufficient for our present requirements.

Future operating cash flows may be affected by a number of factors as outlined in the business background section on page 33.

Capitalisation

We repurchased 23.5 million shares in 2001 for \$1,080 million, bringing the total number of shares repurchased since the start of the repurchase programme in 1999 to 37.2 million at a cumulative cost of \$1,616 million. The original programme envisaged repurchases totalling \$2 billion over three years. The share repurchase programme will continue as an integral part of the Company's financial management and the Board has decided to extend it by an additional \$2 billion to be completed by the end of 2003. The number of shares in issue at year end was 1,745 million. Our reserves were reduced

by \$495 million due to the effect of exchange rate movements on translation of overseas assets and liabilities. Shareholders' funds increased by a net \$265 million to \$9,786 million at year end.

Investments, divestments and capital expenditure

There were no significant acquisitions or disposals in 2001 or 2000.

In 2001, cash expenditure on fixed assets amounted to \$1,385 million. Major projects included a new business centre in the US, manufacturing facilities for new products in the UK, Puerto Rico and Sweden, together with ongoing research and development facility costs. Our capital expenditures are financed from internally generated funds.

Our net cash outflow on capital expenditure and financial investments during 2000 totalled \$1,426 million. Investment in production capacity for growth phase and new products continued. This included increased production facilities for the UK, Puerto Rico and France. R&D support continued with additional research facilities being built in the UK and the US.

There were no significant acquisitions in 1999. Net proceeds from acquisitions and disposals totalled \$1,978 million, the principal element being the disposal of Zeneca Specialties for \$1,956 million.

Our net cash outflow on capital expenditure and financial investments during 1999 totalled \$2,731 million. This included new facilities for pharmaceutical manufacturing and packing and investment in China for the manufacture of gramoxone. Financial investments included the re-acquisition of certain marketing rights and the creation of a joint venture between Zeneca Agrochemicals and Japan Tobacco.

Economic and Monetary Union (EMU)

Within Europe, EMU introduced a new currency, the euro, on 1 January 1999. 12 member states of the European Union – Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the

Netherlands, Portugal and Spain locked their exchange rates with the euro. Euro notes and currency came into circulation in January 2002 and affected national currencies will be withdrawn by 1 March 2002. There were no significant problems for our 'Eurozone' subsidiaries as a result of this as they converted systems to euros during 2001. The costs associated with this conversion are not material.

Neither the UK nor Sweden participated in EMU at the commencement of the third stage on 1 January 1999 and there are currently no agreements in place to do so. We are unable to say whether the UK or Sweden will participate in EMU or at which rate of exchange sterling and the Swedish kronor would be converted into euro in such circumstances.

US GAAP

Our Financial Statements have been prepared in accordance with UK GAAP which differs in certain significant respects from US GAAP. In particular, under US GAAP, the AstraZeneca merger has been accounted for as a purchase accounting acquisition of Astra AB (Astra) by Zeneca Group PLC (Zeneca).

For US GAAP purposes for the periods prior to 6 April 1999, our results comprise those of the former Zeneca businesses only.

Results of continuing operations (US GAAP)

The table below shows the trend of sales under US GAAP for our continuing operations.

2001 compared with 2000

Sales from continuing operations (US GAAP) grew by \$676 million from \$15,804 million in 2000 to \$16,480 million in 2001. Organic growth from existing products, together with a significant contribution from *Nexium* were the principal reasons for this growth.

In Europe sales grew to \$5,270 million and in the US to \$8,700 million, again driven by established products and *Nexium*.

Operating income for the year was \$2,286 million compared with \$1,693 million in 2000. Both years were impacted by amortisation charges arising from the acquisition of Astra – total goodwill amortisation amounting to \$728 million will cease with effect from 1 January 2002 as described below. Excluding the effects of acquisition related costs and one-off impairment charges, operating income rose from \$2,243 million to \$2,510 million.

2000 compared with 1999

Sales from continuing operations rose by \$3,015 million from \$12,789 million in 1999 to \$15,804 million in 2000. A full year's contribution from Astra was the main driver of the increase with *Losec/Prilosec* consolidated sales rising from \$4,495 million to \$6,260 million. Sales in continental Europe and the Americas grew strongly by \$633 million and \$2,053 million respectively, once again reflecting a full year's impact of Astra's contribution.

Operating profit for the year was \$1,693 million compared with a loss of \$4,238 million in 1999. 1999 was affected by acquisition costs, inventory step-up costs and Salick Health Care impairment and rationalisation charges which in total amounted to \$5,841 million. The corresponding effects in 2000 were \$419 million acquisition related costs and \$131 million impairment in respect of the Advanta seeds business. Excluding these effects, operating profit rose from \$1,603 million to \$2,243 million. Both years were impacted by amortisation charges arising from the acquisition of Astra amounting to \$1,298 million in 1999 and \$1,756 million in 2000.

Taxation

Taxation on continuing operations amounted to a charge of \$1,109 million compared to a charge of \$969 million in 2000.

Taxation in relation to continuing operations in 2000 was a charge of \$969 million compared to a credit in 1999 of \$190 million. In 1999, tax relief was

Sales of continuing operations in each geographic area in which customers are located (US GAAP)

	2001 \$m	2000 \$m	1999 \$m
UK	777	795	734
Continental Europe	4,493	4,370	3,714
The Americas	9,572	8,993	6,939
Asia, Africa and Australasia	1,638	1,646	1,402
Total	16,480	15,804	12,789

Financial Review (continued)

accounted for in relation to the in-process R&D charge of \$3,315 million in the year.

Discontinued operations

The 2000 net income from discontinued operations includes the results of Zeneca Agrochemicals up until its demerger on 13 November 2000. The 1999 net income of discontinued operations includes 12 months of Zeneca Agrochemicals' results and six months of Zeneca Specialties' results up until disposal.

Cash flow

In 2001 operating activities generated net cash of \$3,126 million after exceptional cash outflows of \$368 million. There was a cash outflow in respect of investing activities of \$1,327 million, comprising mainly of capital expenditure of \$1,582 million. Financing cash outflows totalled \$2,195 million, the principal payments being in respect of the share repurchase programme (\$1,080 million) and equity dividends (\$1,236 million).

Net cash of \$3,554 million was generated by operating activities in 2000 (\$1,698 million in 1999), after exceptional cash outflows of \$809 million (\$1,586 million in 1999 including \$713 million for payments made to Merck & Co., Inc.). There was a cash outflow in respect of investing activities of \$1,294 million representing, primarily, capital expenditure of \$1,460 million offset by the repayment of debt by Syngenta AG of \$909 million, in connection with the demerger of Zeneca Agrochemicals. Financing cash outflows totalled \$1,620 million, the principal elements being the share repurchase programme of \$353 million (\$183 million in 1999) and dividend payments of \$1,220 million (\$1,216 million in 1999).

Net assets

Net assets at 31 December 2001, in accordance with US GAAP, are significantly higher than those under UK GAAP as a result of the acquisition accounting for Astra. The goodwill arising on the acquisition of Astra had a net book value of \$11.1 billion (\$12.6 billion at 31 December 2000) and intangible assets were \$8.1 billion (\$9.5 billion at 31 December 2000). These effects were partly offset by approximately \$2.3 billion (\$2.7 billion in 2000) of other adjustments being principally deferred tax liabilities related to the acquisition.

New accounting standards

New UK or US applicable accounting standards which have been issued (both adopted and not yet adopted) are discussed on pages 50 and 102-103, respectively. We have evaluated the effects of FRS 17 – Retirement Benefits and FRS 19 – Deferred Tax. FRS 17 and FRS 19 are not expected to have a material impact upon our financial position or results of operations. Further details are set out on pages 50 and 82. The effects of the impact of SFAS No. 143 – Accounting for Asset Retirement Obligations and SFAS No. 144 – Accounting for the Impairment or Disposal of Long-Lived Assets are not expected to be material. The adoption of SFAS No. 141 – Business Combinations and SFAS No. 142 – Goodwill and Other Intangible Assets is estimated to result in an increase in net income of about \$728 million and no impact on shareholders' funds as a result of impairment.

Treasury policy

The main aim of our treasury operations is to support our objective of building shareholder value by managing and controlling our financial risks. Our treasury operations are conducted centrally in accordance with policies and procedures approved by the Board.

The treasury policy stipulates how treasury operations should manage our foreign exchange risk, interest rate risk, credit risk and funding risk.

Foreign exchange risk

The US dollar is the most significant currency for us. As a consequence we have chosen to report our results in US dollars and manage our exposures against US dollars accordingly. Differing proportions of our revenues, costs, assets and liabilities remain denominated in currencies other than US dollars. Approximately half of our sales in 2001 were denominated in currencies other than the US dollar, while a significant proportion of our manufacturing and R&D costs are denominated in sterling and Swedish kronor. As a result, our operating profit in US dollars can be affected by movements in exchange rates.

The principal market risk is the exposure to movements in the exchange rates of currencies relative to the US dollar, in particular sterling, the Swedish kronor, the euro and yen. The principal exposures are net revenues in euro and yen and net costs in sterling and Swedish kronor, as the majority of our manufacturing and R&D operations are in the UK and Sweden.

In 2001, the US dollar appreciated against all major currencies, though this trend began to reverse towards the end of the year. It is estimated that the effect of currency movements was to reduce our continuing business sales by approximately \$571 million and our operating profit by some \$79 million (net of hedging benefits).

Currency exposure is managed centrally using 12 month currency cash flow forecasts for Swedish kronor, sterling, euro, Japanese yen, Australian dollar and Canadian dollar and monthly updated working capital forecasts for the major currencies reported by subsidiaries. We use derivative financial instruments, principally currency options and forward foreign exchange contracts, to hedge our currency exposure. It is our policy not to engage in any speculative transactions.

We hedge all of the transaction exposure on working capital balances, for a period of one to three months, using forward exchange contracts.

For the 12 month transaction exposure, the benchmark is to hedge 50%, subject to variation within authorised limits, using a mixture of currency options and forward exchange contracts. The aim of this policy is to protect the downside risk by reducing the risk of short term volatility.

Key controls applied to transactions in derivative financial instruments are to use only instruments where good market liquidity exists, to re-value all financial instruments daily using current market rates and to write options only to offset purchased options. This ensures that we are not a net writer of options against any exposure.

Interest rate risk

The management of our liquid assets and loans are co-ordinated and controlled centrally by our treasury operations. We have significant positive cash flows and the liquidity of major subsidiaries is co-ordinated in cash pools and concentrated daily in London. Over 90% of our total net liquid funds are directly managed and controlled by our treasury team. Interest rate risk is managed according to a benchmark reflecting 90 days' duration of net liquid funds. Our liquid funds are either invested directly in US dollars or, where invested in other currencies, are hedged back to the US dollar.

Our debt has an average maturity of 10 years and the majority is denominated in US dollars. A large portion has been swapped from fixed rate into floating rate debt, thereby reducing our exposure to interest rate movements and offsetting the negative market valuation of long term debt.

Credit exposure

Our exposure to counterparty credit risk is controlled centrally by establishing and monitoring counterparty limits.

We trade in over 100 countries worldwide including countries that are subject to political and economic uncertainty. This

can give rise to exposure to sovereign risk and payment difficulties. We have a policy of reducing such exposure where possible through appropriate use of insurance, third party secured trade finance products and letters of credit.

Funding risk

We have significant net funds to finance our ongoing working capital requirements for our operations. In addition, we also have guaranteed credit facilities in the amount of \$375 million and retain a commercial paper programme should the need arise for significant additional funding.

Sensitivity analysis

The sensitivity analysis set out in this review summarises the sensitivity of the market value of our financial instruments to hypothetical changes in market rates and prices. Changes to the value of the financial instruments are normally offset by our underlying assets/liabilities. The range of changes 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.

Ratios

As at end and for the year ended 31 December	2001	2000	1999
Return on shareholders' equity (%)	30.7	25.6	10.8
Equity/assets ratio (%)	54.4	51.6	52.0
Net funds/equity ratio (%)	29.3	37.9	21.1
Number of employees	54,600	52,300	55,200

Sensitivity analysis – 31 December 2001

	Market value 31 December 2001	Market value change favourable/(unfavourable)			
		Interest rate movement		Exchange rate movement	
		+1 % \$m	-1 % \$m	+10 % \$m	-10 % \$m
Cash and short term investments	3,897	(4)	4	(13)	13
Long term debt	(805)	20	(24)	10	(10)
Interest and currency swaps	70	–	–	–	–
Foreign exchange forwards	10	–	–	(10)	11
Foreign exchange options	81	–	–	9	108
		16	(20)	(4)	122

Sensitivity analysis – 31 December 2000

	Market value 31 December 2000	Market value change favourable/(unfavourable)			
		Interest rate movement		Exchange rate movement	
		+1 % \$m	-1 % \$m	+10 % \$m	-10 % \$m
Cash and short term investments	4,568	(2)	2	–	–
Long term debt	(746)	15	(20)	2	(2)
Interest and currency swaps	64	–	–	2	(2)
Foreign exchange forwards	(1)	–	–	(51)	43
Foreign exchange options	1	–	–	(11)	85
		13	(18)	(58)	124

Financial Review (continued)

Market values for interest rate risk are calculated using third party systems which model the present value of the instruments based on the market conditions at the valuation date. For long term debt, a favourable change in market value results in a decline in the absolute value of debt. For other financial instruments a favourable change in market value results in an increase in the absolute value.

The sensitivity analysis assumes an instantaneous 100 basis point change in interest rates in all currencies from their levels at 31 December 2001, with all other variables held constant.

Based on the composition of our long term debt portfolio as at 31 December 2001 (which is predominantly floating rate), a 1% increase in interest rates would result in an additional \$6 million in interest being incurred per year.

Foreign currency exchange rate risk

The sensitivity analysis assumes an instantaneous 10% change in foreign currency exchange rates from their levels at 31 December 2001, 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.

International Accounting Standards

Under current European proposals, we will be required to adopt International Accounting Standards ('IASs') in the preparation of our financial statements from 2005 onwards. The transitional arrangements for implementation of IASs have not been established by the regulatory bodies. However, in our opinion, the net profit and shareholders' funds in accordance with IASs are not significantly different from those presented under UK GAAP.

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Preparation of the Financial Statements and Directors' Responsibilities

The Directors are required by UK company law to prepare for each accounting period financial statements which give a true and fair view of the state of affairs of the Group and the Company as at the end of the accounting period and of the profit or loss for that period. In preparing the financial statements, the Directors are required to select and apply consistently suitable accounting policies and make reasonable and prudent judgements and estimates. Applicable accounting standards also have to be followed and a statement made to that effect in the financial statements, subject to any material departures being disclosed and explained in the notes to the financial statements. The Directors are required to prepare the financial statements on a going concern basis unless it is inappropriate to presume that the Group will continue in business. The Directors are responsible for ensuring proper accounting records are kept which disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the Companies Act 1985. They are also responsible for taking reasonable steps to safeguard the assets of the Company and prevent and detect fraud and other irregularities.

Independent Auditor's Report to the Members of AstraZeneca PLC

We have audited the Financial Statements on pages 46 to 110.

Respective responsibilities of Directors and Auditors

The Directors are responsible for preparing the Annual Report and Form 20-F. As described on page 44 this includes responsibility for preparing the Financial Statements in accordance with applicable United Kingdom law and accounting standards; the Directors have also presented additional information under United States requirements. Our responsibilities, as independent auditor, are established in the United Kingdom by statute, the Auditing Practices Board, the Listing Rules of the Financial Services Authority, and by our profession's ethical guidance.

We report to you our opinion as to whether the Financial Statements give a true and fair view and are properly prepared in accordance with the Companies Act 1985. We also report to you if, in our opinion, the Directors' Report is not consistent with the Financial Statements, if the Company has not kept proper accounting records, if we have not received all the information and explanations we require for our audit, or if information specified by law or the Listing Rules regarding Directors' remuneration and transactions with the Group is not disclosed.

We review whether the statement on page 28 reflects the Company's compliance with the seven provisions of the Combined Code specified for our review by the Listing Rules, and we report if it does not. We are not required to consider whether the Board's statements on internal control cover all risks and controls, or form an opinion on the effectiveness of the Group's corporate governance procedures or its risk and control procedures.

We read the other information contained in the Annual Report and Form 20-F, including the corporate governance statement and consider whether it is consistent with the audited Financial Statements. We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the Financial Statements.

Basis of audit opinion

We conducted our audit in accordance with auditing standards issued by the Auditing Practices Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the Financial Statements. It also includes an assessment of the significant estimates and judgements made by the Directors in the preparation of the Financial Statements, and of whether the accounting policies are appropriate to the Group's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the Financial Statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the Financial Statements.

Opinion

In our opinion the Financial Statements give a true and fair view of the state of affairs of the Company and the Group as at 31 December 2001 and of the profit of the Group for the year then ended and have been properly prepared in accordance with the Companies Act 1985.

Generally accepted accounting principles in the United Kingdom vary in certain significant respects from generally accepted accounting principles in the United States. Application of generally accepted accounting principles in the United States would have affected results of operations for each of the years in the three-year period ended 31 December 2001 and consolidated shareholders' equity at 31 December 2001 and 2000, to the extent summarised on pages 101 to 110.

31 January 2002

KPMG Audit Plc
Chartered Accountants
Registered Auditor
8 Salisbury Square
London EC4Y 8BB

The above opinion is provided in compliance with United Kingdom requirements. An opinion complying with auditing standards generally accepted in the United States will be included in the Annual Report on Form 20-F filed with the United States Securities and Exchange Commission.

Group Profit and Loss Account for the year ended 31 December

	Notes	Continuing operations \$m	Exceptional items \$m	2001 Total \$m
Turnover: Group and share of joint ventures		16,663	-	16,663
Less: Share of joint venture turnover		(183)	-	(183)
Group turnover	3	16,480	-	16,480
Operating costs	3	(12,692)	(202)	(12,894)
Other operating income	3	368	-	368
Group operating profit	3	4,156	(202)	3,954
Share of operating (loss)/profit of joint ventures and associates	4	-	-	-
Profits less losses on sale, closure, or demerger of operations	5	-	-	-
Merger costs	5	-	-	-
Profits on sale of fixed assets	5	-	10	10
Dividend income		8	-	8
Profit on ordinary activities before interest		4,164	(192)	3,972
Net interest	6	105	-	105
Profit on ordinary activities before taxation		4,269	(192)	4,077
Taxation	7	(1,153)	54	(1,099)
Profit on ordinary activities after taxation		3,116	(138)	2,978
Attributable to minorities		(11)	-	(11)
Net profit for the financial year		3,105	(138)	2,967
Dividends to shareholders				
Cash	8			(1,225)
Dividend in specie – demerger of Zeneca Agrochemicals	8			-
Profit/(loss) retained for the financial year				1,742
Earnings per \$0.25 Ordinary Share before exceptional items	9	\$1.77	-	\$1.77
Earnings per \$0.25 Ordinary Share (basic)	9	\$1.77	(\$0.08)	\$1.69
Earnings per \$0.25 Ordinary Share (diluted)	9	\$1.77	(\$0.08)	\$1.69
Weighted average number of Ordinary Shares in issue (millions)	9			1,758

Group Statement of Total Recognised Gains and Losses for the year ended 31 December

	Notes	2001 \$m
Net profit for the financial year		2,967
Exchange adjustments on net assets	22	(495)
Translation differences on foreign currency borrowings	22	18
Tax on translation differences on foreign currency borrowings	22	(6)
Total recognised gains and losses relating to the financial year		2,484

\$m means millions of US dollars

	Continuing operations \$m	Discontinued operations \$m	Exceptional items \$m	2000 Total \$m	Continuing operations \$m	Discontinued operations \$m	Exceptional items \$m	1999 Total \$m
	15,999	2,299	-	18,298	15,334	3,319	-	18,653
	(195)	-	-	(195)	(200)	(8)	-	(208)
	15,804	2,299	-	18,103	15,134	3,311	-	18,445
	(12,043)	(1,996)	(322)	(14,361)	(11,704)	(3,022)	(1,162)	(15,888)
	223	43	-	266	140	49	-	189
	3,984	346	(322)	4,008	3,570	338	(1,162)	2,746
	(12)	-	(137)	(149)	(10)	3	-	(7)
	-	-	(150)	(150)	-	-	237	237
	-	-	-	-	-	-	(1,013)	(1,013)
	-	-	-	-	-	-	-	-
	3	-	-	3	-	-	-	-
	3,975	346	(609)	3,712	3,560	341	(1,938)	1,963
	135	-	-	135	(4)	-	-	(4)
	4,110	346	(609)	3,847	3,556	341	(1,938)	1,959
	(1,192)	(135)	28	(1,299)	(1,048)	(118)	351	(815)
	2,918	211	(581)	2,548	2,508	223	(1,587)	1,144
	(9)	(1)	-	(10)	-	(1)	-	(1)
	2,909	210	(581)	2,538	2,508	222	(1,587)	1,143
				(1,236)				(1,242)
				(1,669)				-
				(367)				(99)
	\$1.64	\$0.12	-	\$1.76	\$1.41	\$0.13	-	\$1.54
	\$1.64	\$0.12	(\$0.32)	\$1.44	\$1.41	\$0.13	(\$0.90)	\$0.64
	\$1.64	\$0.12	(\$0.32)	\$1.44	\$1.41	\$0.13	(\$0.90)	\$0.64
				1,768				1,776

Group Balance Sheet at 31 December

	Notes	2001 \$m	2000 \$m
Fixed assets			
Tangible fixed assets	11	5,409	4,957
Goodwill and intangible assets	12	2,700	2,951
Fixed asset investments	13	23	11
		8,132	7,919
Current assets			
Stocks	14	2,402	2,105
Debtors	15	3,628	3,960
Short term investments	16	3,118	3,429
Cash	30	705	1,021
		9,853	10,515
Total assets		17,985	18,434
Creditors due within one year			
Short term borrowings	17	(214)	(126)
Current instalments of loans	19	(107)	(88)
Other creditors	18	(6,159)	(6,683)
		(6,480)	(6,897)
Net current assets		3,373	3,618
Total assets less current liabilities		11,505	11,537
Creditors due after more than one year			
Loans	19	(635)	(631)
Other creditors	18	(152)	(296)
		(787)	(927)
Provisions for liabilities and charges	21	(896)	(1,068)
Net assets		9,822	9,542
Capital and reserves			
Called-up share capital	40	436	442
Share premium account	23	334	235
Capital redemption reserve	23	9	3
Merger reserve	23	433	433
Other reserves	23	1,470	1,451
Profit and loss account	23	7,104	6,957
Shareholders' funds – equity interests	22	9,786	9,521
Minority equity interests		36	21
Shareholders' funds and minority interests		9,822	9,542

The Financial Statements on pages 46 to 110 were approved by the Board of Directors on 31 January 2002 and were signed on its behalf by:

Tom McKillop
Director

Jonathan Symonds
Director

Statement of Group Cash Flow for the year ended 31 December

	Notes	2001 \$m	2000 \$m	1999 \$m
Cash flow from operating activities				
Net cash inflow from trading operations	24	4,130	4,992	4,699
Outflow related to exceptional items	25	(368)	(809)	(1,586)
Net cash inflow from operating activities		3,762	4,183	3,113
Dividends received from joint ventures		–	–	3
Returns on investments and servicing of finance				
Interest received		232	180	132
Interest paid		(84)	(145)	(97)
Dividends received		8	–	–
Dividends paid by subsidiaries to minority interests		–	(16)	(6)
		156	19	29
Tax paid		(792)	(648)	(1,020)
Capital expenditure and financial investment				
Cash expenditure on tangible fixed assets	11	(1,385)	(1,347)	(1,490)
Cash expenditure on intangible assets		(197)	(113)	(1,263)
New fixed asset investments		(5)	(3)	(6)
Disposals of fixed assets		44	37	28
		(1,543)	(1,426)	(2,731)
Acquisitions and disposals				
Acquisitions of subsidiaries and purchases of minority interests	26	(44)	(167)	(23)
Net repayment of debt by Zeneca Agrochemicals	27	–	909	–
Disposals of business operations	28	–	–	1,981
Disposals of investments in joint ventures and associates		–	(2)	20
		(44)	740	1,978
Equity dividends paid to shareholders		(1,236)	(1,220)	(1,216)
Net cash inflow before management of liquid resources and financing	30	303	1,648	156
Management of liquid resources and financing				
Movement in short term investments and fixed deposits (net)		260	(608)	(254)
Financing	31	(959)	(400)	(182)
(Decrease)/increase in cash in the year	29	(396)	640	(280)

Basis of Consolidation and Presentation of Financial Information

The preparation of the Financial Statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent 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.

Discontinued operations

Following the demerger of the Zeneca Agrochemicals business on 13 November 2000 and its subsequent merger with Novartis' agribusiness to form Syngenta AG, Zeneca Agrochemicals' results have been reported as discontinued operations, together with the results of the former Zeneca Specialties business, which was sold on 30 June 1999.

New accounting standards

The following new accounting standard was adopted during the year:

UK Financial Reporting Standard 18 (FRS 18) – 'Accounting Policies' requires an entity to adopt accounting policies most appropriate to its particular circumstances, to review them regularly for appropriateness and to disclose sufficient information to enable users of financial statements to understand the policies adopted and how they have been implemented. The impact of adoption on AstraZeneca's Financial Statements was not material.

In addition, the following new accounting standards have been issued but have not yet been fully adopted:

UK Financial Reporting Standard 17 (FRS 17) – 'Retirement Benefits' becomes fully effective for accounting periods ending on or after 22 June 2003, with increasing levels of disclosure required for each accounting period ending on or after 22 June 2001. It sets out the requirements for accounting for retirement benefits, including the fair value of assets and liabilities arising from employer's obligations, the treatment of related costs, and level of disclosure. AstraZeneca has adopted FRS 17 to the extent of the mandated disclosure requirements for the year ended 31 December 2001 and these are included in Note 32 to the Financial Statements.

UK Financial Reporting Standard 19 (FRS 19) – 'Deferred Tax' is applicable for accounting periods ending on or after 23 January 2002. It requires a form of full provision to be made for deferred tax assets and liabilities arising from timing differences between the recognition of gains and losses in the Financial Statements and their recognition in a tax computation except for certain exemptions set out in the standard. The estimated impact of adoption on the Group's Financial Statements would be to reduce net profit for 2001 by \$61 million and net assets by \$193 million.

Accounting Policies

Basis of accounting

The Financial Statements are prepared under the historical cost convention, modified to include the market value of certain current asset investments held by Group subsidiaries as described below, in accordance with the Companies Act 1985 and UK generally accepted accounting principles (UK GAAP). Where there are significant differences to US GAAP these have been described in the US GAAP section on pages 101 to 110. The following paragraphs describe the main accounting policies under UK GAAP. The accounting policies of some overseas subsidiaries and associated undertakings do not conform with UK GAAP and, where appropriate, adjustments are made on consolidation in order to present the Group Financial Statements on a consistent basis.

On 13 November 2000, AstraZeneca demerged Zeneca Agrochemicals, which was merged with the Novartis agribusiness to form Syngenta AG. The impact of the demerger on the AstraZeneca Financial Statements for the year ended 31 December 2000 is shown in Note 27.

Fixed assets, depreciation and amortisation

AstraZeneca's policy is to write off the difference between the cost of each tangible fixed asset and its residual value evenly over its estimated remaining life. Reviews are made periodically of the estimated remaining lives of individual productive assets, taking account of commercial and technological obsolescence as well as normal wear and tear. Under this policy it becomes impracticable to calculate average asset lives exactly. However, the total lives approximate to 25 years for buildings and 15 years for plant and equipment. Intangible assets, including patents, acquired are capitalised and amortised on a straight line basis over their estimated useful lives (generally not exceeding 20 years) in line with the benefits accruing. If related products fail, the remaining unamortised amounts are immediately written off to revenue expense. Finance costs and internally developed intangible assets are not capitalised. All fixed assets are reviewed for impairment when there are indications that the carrying value may not be recoverable.

Environmental liabilities

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, it is probable that expenditure on remedial work will be required and a reliable estimate can be made of the cost.

Foreign currencies

Profit and loss accounts in foreign currencies are translated into US dollars at average rates for the relevant accounting periods. Assets and liabilities are translated at exchange rates prevailing at the date of the Group balance sheet.

Exchange gains and losses on short term foreign currency borrowings and deposits are included within net interest payable. Exchange differences on all other transactions, except relevant foreign currency loans, are taken to operating profit. In the consolidated financial statements exchange differences arising on consolidation of the net investments in overseas subsidiaries, joint ventures and associates together with those on relevant foreign currency loans are taken directly to reserves via the statement of total recognised gains and losses.

Goodwill

On the acquisition of a business, fair values are attributed to the net assets acquired. Goodwill arises where the fair value of the consideration given for a business exceeds the fair value of such net assets. Goodwill arising on acquisitions since 1998 is capitalised and amortised over its estimated useful life (generally not exceeding 20 years). Goodwill is reviewed for impairment when there are indications 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. Such goodwill will remain eliminated against reserves until disposal or termination (including the planned disposal or termination when there are indications that the value of the goodwill has been permanently impaired) of the previously acquired business, when the profit or loss on disposal or termination will be calculated after charging the gross amount, at current exchange rates, of any such goodwill.

Investments

An associate is an undertaking, not being a subsidiary or joint venture, in which AstraZeneca has a participating interest and over whose commercial and financial policy decisions AstraZeneca exercises significant influence.

A joint venture is an entity in which AstraZeneca holds an interest on a long term basis and which is jointly controlled by AstraZeneca and one or more other venturers under a contractual arrangement.

AstraZeneca's share of the profits less losses of all significant joint ventures and associates is included in the Group profit and loss account on the equity accounting basis or, in the case of joint ventures, the gross equity accounting basis. The holding value of significant associates and joint ventures in the Group balance sheet is calculated by reference to AstraZeneca's equity in the net assets of such associates and joint ventures, as shown by the most recent accounts available, adjusted where appropriate and including goodwill on acquisitions made since 1 January 1998.

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

Current asset investments held by the Group's insurance company subsidiaries, to the extent that they are actively matched against insurance liabilities, are valued at market value and unrealised gains and losses are taken directly to reserves via the statement of total recognised gains and losses. Realised gains and losses are taken to the profit and loss account.

Accounting Policies

Leases

Assets held under finance leases are capitalised and included in tangible fixed assets at fair value. Each asset is depreciated over the shorter of the lease term or its useful life. The obligations related to finance leases, net of finance charges in respect of future periods, are included as appropriate under creditors due within, or creditors due after, one year. The interest element of the rental obligation is allocated to accounting periods during the lease term to reflect a constant rate of interest on the remaining balance of the obligation for each accounting period. Rentals under operating leases are charged to the profit and loss account as incurred.

Post-retirement benefits

The pension costs relating to UK retirement plans are assessed in accordance with the advice of independent qualified actuaries. The amounts so determined include the regular cost of providing the benefits under the plans which it is intended should remain as a level percentage of current and expected future earnings of the employees covered under the plans. Variations from the regular pension cost are spread on a systematic basis over the estimated average remaining service lives of current employees in the plans. Retirement plans of non-UK subsidiaries are accounted for in accordance with local conditions and practice. With minor exceptions, these subsidiaries recognise the expected cost of providing pensions on a systematic basis over the average remaining service lives of employees in accordance with the advice of independent qualified actuaries. The costs of providing post-retirement benefits other than pensions, principally healthcare, are charged to the profit and loss account on a consistent basis over the average service lives of employees. Such costs are assessed in accordance with the advice of independent qualified actuaries. AstraZeneca has adopted the disclosure requirements of FRS 17 in the current year.

Research and development

R&D expenditure is charged to the profit and loss account in the year in which it is incurred.

Stock valuation

Finished goods are stated at the lower of cost or net realisable value and raw materials and other stocks at the lower of cost or replacement price. The first in, first out or an average method of valuation is used. In determining cost, depreciation is included but selling expenses and certain overhead expenses (principally central administration costs) are excluded. Net realisable value is determined as estimated selling price less costs of disposal.

Taxation

The charge for taxation is based on the profits for the year and takes into account taxation deferred because of timing differences between the treatment of certain items for taxation and for accounting purposes. However, no provision is made for taxation deferred by reliefs unless there is reasonable evidence that such deferred taxation will be payable in the foreseeable future.

Turnover

Turnover excludes inter-company turnover and value added taxes. Revenue is recognised at the point at which title passes.

Principal financial instruments

Forward foreign exchange contracts for existing transactions are stated at fair value at the balance sheet date and the gains/losses arising are recognised in the Group profit and loss account. Contracts to hedge anticipated exposures are not marked to market and gains/losses are deferred until the transaction is completed.

Forward currency option contracts are not marked to market as they are designated hedges and reduce the Group's exposure to risk. The gains/losses on these contracts are deferred until the date the underlying transaction being hedged is completed.

Interest rate swaps are accounted for on an accruals basis. Cross-currency swaps are translated at year end exchange rates; gains/losses arising are included in the measurement of the related liabilities and dealt with in the Group profit and loss account or reserves as appropriate.

Notes to the Financial Statements

1 Composition of the Group

The Group Financial Statements consolidate the financial statements of AstraZeneca PLC and its subsidiaries, of which there were 246, at 31 December 2001. Owing to local conditions and to avoid undue delay in the presentation of the Group Financial Statements, Salick Health Care prepares its financial statements to 30 November.

2 Note of historical cost profits and losses

There were no material differences between reported profits and losses and historical cost profits and losses on ordinary activities before taxation.

Notes to the Financial Statements

3 Group operating profit

	Continuing operations		2001 Total \$m
	Pre exceptional items \$m	Exceptional items \$m	
Group turnover	16,480	-	16,480
Operating costs			
Cost of sales	(4,456)	(34)	(4,490)
Distribution costs	(122)	-	(122)
Research and development	(2,687)	(86)	(2,773)
Selling, general and administrative expenses	(5,427)	(82)	(5,509)
	(12,692)	(202)	(12,894)
Other operating income			
Royalties	154	-	154
Other income	214	-	214
	368	-	368
Other income includes gains arising from disposals under ongoing product rationalisation programmes			
Group operating profit	4,156	(202)	3,954
Charges included above			
- for depreciation	(605)	(12)	(617)
- for amortisation	(255)	-	(255)
- for impairment	-	-	-
Gross profit, as defined by the Companies Act 1985	12,024	(34)	11,990

4 Share of operating (losses)/profits of joint ventures and associates

	Continuing operations		2001 Total \$m
	Pre exceptional items \$m	Exceptional items \$m	
Share of operating (loss)/profit of joint ventures	-	-	-
Share of operating profit of associates	-	-	-
	-	-	-

	Continuing operations		Discontinued operations		2000 Total \$m	Continuing operations		Discontinued operations		1999 Total \$m
	Pre exceptional items \$m	Exceptional items \$m	Pre exceptional items \$m	Exceptional items \$m		Pre exceptional items \$m	Exceptional items \$m	Pre exceptional items \$m	Exceptional items \$m	
	15,804	-	2,299	-	18,103	15,134	-	3,311	-	18,445
	(4,181)	(11)	(1,299)	-	(5,491)	(4,087)	(15)	(1,913)	(22)	(6,037)
	(210)	-	(76)	-	(286)	(230)	-	(113)	-	(343)
	(2,620)	(51)	(222)	-	(2,893)	(2,472)	(110)	(341)	-	(2,923)
	(5,032)	(260)	(399)	-	(5,691)	(4,915)	(912)	(655)	(103)	(6,585)
	(12,043)	(322)	(1,996)	-	(14,361)	(11,704)	(1,037)	(3,022)	(125)	(15,888)
	160	-	33	-	193	123	-	36	-	159
	63	-	10	-	73	17	-	13	-	30
	223	-	43	-	266	140	-	49	-	189
	3,984	(322)	346	-	4,008	3,570	(1,037)	338	(125)	2,746
	(585)	-	(102)	-	(687)	(600)	-	(156)	-	(756)
	(281)	-	(14)	-	(295)	(296)	-	(17)	-	(313)
	(6)	(18)	-	-	(24)	-	(123)	-	(26)	(149)
	11,623	(11)	1,000	-	12,612	11,047	(15)	1,398	(22)	12,408

	Continuing operations		Discontinued operations		2000 Total \$m	Continuing operations		Discontinued operations		1999 Total \$m
	Pre exceptional items \$m	Exceptional items \$m	Pre exceptional items \$m	Exceptional items \$m		Pre exceptional items \$m	Exceptional items \$m	Pre exceptional items \$m	Exceptional items \$m	
	(12)	(137)	-	-	(149)	(10)	-	1	-	(9)
	-	-	-	-	-	-	-	2	-	2
	(12)	(137)	-	-	(149)	(10)	-	3	-	(7)

Notes to the Financial Statements

5 Exceptional items

	2001 \$m	2000 \$m	1999 \$m
Integration and synergy costs	(202)	(322)	(864)
AstraZeneca LP restructuring costs	-	-	(28)
Salick Health Care – impairment and rationalisation costs	-	-	(145)
Continuing operations	(202)	(322)	(1,037)
Discontinued – Agrochemicals restructuring costs	-	-	(125)
Exceptional items included in operating profits	(202)	(322)	(1,162)
Continuing operations			
Provision of impairment of investment in Advanta BV (after charging \$49m of goodwill previously written off to reserves)	-	(137)	-
Share of operating losses of joint ventures and associates	-	(137)	-
Discontinued operations			
Costs related to the demerger of Zeneca Agrochemicals and formation of Syngenta AG	-	(150)	-
Gain on disposal of Specialties business (after charging \$406m of goodwill previously written off to reserves)	-	-	237
Profits less losses on sale, closure, or demerger of operations	-	(150)	237
Continuing operations			
Merck trigger event payment and related costs	-	-	(809)
Other merger costs	-	-	(204)
Merger costs	-	-	(1,013)
Profit on sale of fixed assets	10	-	-
Total exceptional items before taxation	(192)	(609)	(1,938)
Net taxation credit	54	28	351
Total exceptional items after taxation	(138)	(581)	(1,587)

The integration and synergy programme initiated in 1999 was completed during 2001, with further exceptional charges of \$202m (2000 \$322m, 1999 \$864m), principally for manpower related costs, IT costs, and contractors. This brings the cumulative charges to \$1,388m.

The Group took an exceptional charge of \$137m in 2000 to provide for impairment of its 50% interest in the seeds company Advanta BV, including a write off of \$49m of related goodwill previously taken to reserves.

The costs related to the demerger of Zeneca Agrochemicals and formation of Syngenta AG included advisors' fees, the costs of separating computer systems, employee related costs and environmental and occupational health provisions. The exceptional charge was reduced by the gain on disposal of products whose sale was required by the competition authorities as a condition of the creation of Syngenta AG. Tax relief on the net exceptional costs was more than offset by the provision for capital taxes arising out of the restructuring of the business in preparation for demerger, resulting in a net tax cost of \$50m.

Details of the other 1999 exceptional items are as follows:

- A charge of \$28m to complete the programme to rationalise Astra's US operations following the Astra Merck Inc. restructuring in mid 1998.
- A charge of \$145m to recognise the consequence of refocusing the Salick Health Care business on a smaller base of profitable cancer centres and the impairment of certain fixed asset carrying values (\$78m) and debtors in the light of the prospects for the business.
- A charge of \$125m in relation to restructuring projects commenced by Zeneca Agrochemicals including \$26m of asset impairments.
- A gain of \$237m before tax realised on the sale of Zeneca Specialties (\$140m after tax) after allowing for the write back of goodwill (\$406m) previously charged to reserves, costs of separation from other AstraZeneca businesses (including \$63m asset impairments) and provisions for pension liabilities.
- Merger costs of \$1,013m, including the \$809m trigger event payment to Merck & Co., Inc (including related costs) following the merger of Astra and Zeneca and asset impairments of \$6m. This research and development payment was made in exchange for the release by Merck of certain claims under a licence agreement with a Merck affiliate (see Note 36).

6 Net interest

	2001 \$m	2000 \$m	1999 \$m
Interest receivable and similar income from investments			
Securities	19	30	70
Short-term deposits	179	192	95
Exchange gain	1	46	-
Joint ventures	-	1	1
	199	269	166
Interest payable and similar charges			
Loan interest	(32)	(50)	(57)
Interest on short-term borrowings and other financing costs	(35)	(62)	(91)
Discount on liability	(15)	(19)	(19)
Exchange losses	(12)	-	-
Joint ventures	-	(3)	(3)
	(94)	(134)	(170)
Net interest receivable/(payable)	105	135	(4)

The discounting charge above relates to amounts owed in respect of the re-acquisition of certain distribution rights which are payable over the next two years. In prior years, all interest has been classified within continuing operations as the management of the Group's liquidity and funding is carried out by the central treasury function and it is not practicable to allocate interest to the different reporting segments.

Notes to the Financial Statements

7 Taxation

Profit on ordinary activities before taxation, as shown in the Group profit and loss account, was as follows:

	2001 \$m	2000 \$m	1999 \$m
UK	618	808	176
Overseas	3,459	3,039	1,783
	4,077	3,847	1,959

Taxes on profit on ordinary activities were as follows:

	2001 \$m	2000 \$m	1999 \$m
UK taxation			
Corporation tax	147	130	233
Double taxation relief	(37)	(42)	(34)
Deferred taxation	10	59	(58)
	120	147	141
Overseas taxation			
Overseas taxes	722	1,070	845
Deferred taxation	257	79	(172)
	979	1,149	673
Share of taxation of joint ventures and associates	-	3	1
Tax on profit on ordinary activities	1,099	1,299	815

In prior years, the charge for taxation has been allocated between continuing operations and discontinued operations based on the effective tax rates for the Group in the territories in which these operations are based.

UK and overseas taxation has been provided at current rates on the profits earned for the periods covered by the Group financial statements. 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. No taxes have been provided for unremitted earnings of Group companies overseas as these are, in the main, considered permanently employed in the businesses of these companies and, in the case of joint ventures and associates, the taxes would not be material. Cumulative unremitted earnings of overseas subsidiaries and related undertakings totalled approximately \$4,728m at 31 December 2001. Unremitted earnings may be liable to overseas taxes and/or UK taxation (after allowing for double taxation relief) if they were to be distributed as dividends.

Exceptional items included in tax on ordinary activities

	2001 \$m	2000 \$m	1999 \$m
Tax credit on exceptional items*	(54)	(28)	(351)

* Includes deferred tax relief of \$23m (2000 \$66m, 1999 \$375m)

Statement of total recognised gains and losses

In certain circumstances, tax charges or credits on currency differences on borrowings are taken to reserves via the statement of total recognised gains and losses. The tax charge on such currency translation differences amounted to \$6m in 2001 (2000 \$42m, 1999 \$5m) and have been reported in the statement of total recognised gains and losses.

Tax reconciliation to UK statutory rate

The table shown reconciles the UK statutory tax charge to the Group's charge on profit on ordinary activities before taxation.

7 Taxation (continued)

	2001 \$m	2000 \$m	1999 \$m
Profit on ordinary activities before taxation	4,077	3,847	1,959
Taxation charge at UK corporation tax rate of 30% for 2001 (30% for 2000, 30.25% for 1999)	1,223	1,154	593
Timing differences not recognised	(76)	(21)	280
Exceptional items	4	155	235
Net effect of lower rates and eligible costs in other jurisdictions	(82)	(114)	(266)
Other	30	125	(27)
Taxes on profit on ordinary activities	1,099	1,299	815

	2001 \$m	2000 \$m	1999 \$m
Balance sheet			
Deferred taxation (liability)/asset movement			
At beginning of year	222	369	173
Profit and loss account	(267)	(138)	230
Other movements	26	(9)	(34)
At end of year	(19)	222	369
Debtors – amount due within one year (Note 15)	39	118	78
Debtors – amount due after more than one year (Note 15)	146	189	435
Provisions (Note 21)	(204)	(85)	(144)
	(19)	222	369

Deferred taxation

The amounts of deferred taxation accounted for in the Group balance sheet and the full potential amounts of deferred taxation comprised the following deferred tax liabilities and assets:

	Year ended 31 December 2001			Year ended 31 December 2000		
	Partial provision for deferred tax \$m	Not accounted for deferred tax \$m	Full provision for deferred tax \$m	Partial provision for deferred tax \$m	Not accounted for deferred tax \$m	Full provision for deferred tax \$m
Deferred tax liabilities						
UK fixed assets	-	332	332	-	298	298
Non-UK fixed assets	128	327	455	76	214	290
Capital gains rolled over	-	77	77	-	79	79
Interest accruals	62	10	72	10	-	10
Other	33	126	159	43	124	167
	223	872	1,095	129	715	844
Deferred tax assets						
Intercompany inventory transfers	-	413	413	-	355	355
Merger, integration and restructuring charges	121	-	121	225	16	241
Environmental	-	6	6	12	13	25
Pension and post-retirement benefits	23	68	91	52	64	116
Other	60	117	177	62	123	185
	204	604	808	351	571	922
Deferred tax (liability)/asset	(19)	(268)	(287)	222	(144)	78

Notes to the Financial Statements

8 Dividends

	2001 Per Share	2000 Per Share	1999 Per Share	2001 \$m	2000 \$m	1999 \$m
Interim, paid on 5 October 2001	\$0.23	\$0.23	\$0.23	405	406	408
Second interim, to be confirmed as final, payable 8 April 2002	\$0.47	\$0.47	\$0.47	820	830	834
	\$0.70	\$0.70	\$0.70	1,225	1,236	1,242
Dividend in specie – demerger of Zeneca Agrochemicals				–	1,669	–

The demerger of Zeneca Agrochemicals was recorded in the Group accounts at the book value of the net assets which were deconsolidated, \$2,059m (net of minority interest), together with \$813m of related goodwill which had previously been written off to reserves, less debt and liabilities assumed by Zeneca Agrochemicals, \$1,203m, giving a dividend in specie of \$1,669m.

9 Earnings per \$0.25 Ordinary Share

	2001 \$m	2000 \$m	1999 \$m
Net profit for the financial year before exceptional items (\$m)	3,105	3,119	2,730
Exceptional items after tax (\$m) (see Note 5)	(138)	(581)	(1,587)
Net profit for the financial year (\$m)	2,967	2,538	1,143
Earnings per Ordinary Share before exceptional items (\$)	\$1.77	\$1.76	\$1.54
Loss per Ordinary Share on exceptional items (\$)	(\$0.08)	(\$0.32)	(\$0.90)
Earnings per Ordinary Share (\$)	\$1.69	\$1.44	\$0.64
Diluted earnings per Ordinary Share before exceptional items (\$)	\$1.77	\$1.76	\$1.54
Diluted loss per Ordinary Share on exceptional items (\$)	(\$0.08)	(\$0.32)	(\$0.90)
Diluted earnings per Ordinary Share (\$)	\$1.69	\$1.44	\$0.64
Weighted average number of Ordinary Shares in issue for basic earnings (millions)	1,758	1,768	1,776
Dilutive impact of share options outstanding (millions)	3	2	3
Diluted average number of Ordinary Shares in issue (millions)	1,761	1,770	1,779

There are no options, warrants or rights outstanding in respect of unissued shares except for employee share option schemes. The number of options outstanding and the weighted average exercise price of these options is shown in Note 33. The earnings figures used in the calculations above are unchanged for diluted earnings per Ordinary Share. Earnings per Ordinary Share before exceptional items has been calculated to eliminate the impact of exceptional items on the results of the business.

10 Segment information

Classes of Business

	Turnover		
	2001 \$m	2000 \$m	1999 \$m
Continuing operations	16,480	15,804	15,134
Discontinued operations – Agrochemicals			
External	–	2,299	2,657
Intra-Group	–	–	3
Discontinued operations – Specialties			
External	–	–	654
Intra-Group	–	–	3
	–	2,299	3,317
	16,480	18,103	18,451
Intra-Group eliminations	–	–	(6)
Group turnover	16,480	18,103	18,445
Share of joint venture turnover	183	195	208
Group turnover and share of joint venture turnover	16,663	18,298	18,653

The Group's policy is to transfer products internally at external market prices.

	Operating profit/(loss) after exceptionals			Profit/(loss) before interest and taxation		
	2001 \$m	2000 \$m	1999 \$m	2001 \$m	2000 \$m	1999 \$m
Profit arising in						
Continuing operations	3,954	3,662	2,533	3,972	3,665	1,520
Discontinued operations – Agrochemicals	–	346	142	–	196	142
Discontinued operations – Specialties	–	–	71	–	–	308
	3,954	4,008	2,746	3,972	3,861	1,970
Share of operating loss of joint ventures and associates				–	(149)	(7)
				3,972	3,712	1,963

In prior years, corporate overheads have been allocated to each business segment on a consistent basis. The effect of these allocations was not material.

Notes to the Financial Statements

10 Segment information (continued)

	Net assets/(liabilities)			Total assets		
	2001 \$m	2000 \$m	1999 \$m	2001 \$m	2000 \$m	1999 \$m
Continuing operations	8,808	7,604	7,388	14,158	13,658	12,967
Discontinued operations – Agrochemicals	–	–	1,860	–	–	2,879
Discontinued operations – Specialties	–	(126)	(164)	–	3	19
	8,808	7,478	9,084	14,158	13,661	15,865
Intra-Group eliminations	–	–	–	–	(12)	(102)
Non-operating assets*	1,014	2,064	1,144	3,818	4,785	3,939
Investments in joint ventures and associates	–	–	114	–	–	114
	9,822	9,542	10,342	17,976	18,434	19,816

* Non-operating assets include short term investments and cash, short term borrowings, loans and debtors and creditors not attributable to individual business segments.

	Capital expenditure**			Depreciation, amortisation and impairment		
	2001 \$m	2000 \$m	1999 \$m	2001 \$m	2000 \$m	1999 \$m
Continuing operations	1,501	1,248	2,982	872	890	1,025
Discontinued operations – Agrochemicals	–	153	194	–	121	171
Discontinued operations – Specialties	–	–	55	–	–	91
	1,501	1,401	3,231	872	1,011	1,287

** Capital expenditure includes expenditure on goodwill and intangible assets. Continuing operations capital expenditure in 1999 included the \$967m first option payment to Merck and \$720m in respect of the reacquisition of marketing rights.

Employees	2001	2000	1999
Average number of people employed by the Group in:			
UK	10,200	10,000	9,700
Continental Europe	19,900	20,400	19,200
The Americas	16,700	14,200	12,900
Asia, Africa & Australasia	5,800	5,500	5,400
Continuing operations	52,600	50,100	47,200
Discontinued operations – Agrochemicals	–	6,900	8,100
Discontinued operations – Specialties	–	–	2,700
	52,600	57,000	58,000

The number of people employed by the Group at the end of 2001 was 54,600 (2000 52,300, 1999 55,200).

10 Segment information (continued)

Geographic areas

The tables below show information by geographic area and, for turnover and tangible fixed assets, material countries. The figures for each area show the turnover, operating profit and profit on ordinary activities before interest and taxation made by companies located in that area/country, together with net operating assets and tangible fixed assets owned by the same companies; export sales and the related profit are included in the areas from which those sales were made.

	2001 \$m	2000 \$m	Turnover 1999 \$m
UK			
External	972	997	1,115
Intra-Group	2,449	2,155	1,905
	3,421	3,152	3,020
Continental Europe			
France	928	861	864
Germany	677	778	849
Italy	576	532	545
Netherlands	308	297	284
Spain	352	402	441
Sweden	559	601	599
Others	1,095	891	950
Intra-Group	1,494	1,371	1,203
	5,989	5,733	5,735
The Americas			
Canada	525	479	419
United States	8,682	8,129	7,344
North America	9,207	8,608	7,763
Brazil	102	133	132
Others	215	186	162
Intra-Group	223	183	201
	9,747	9,110	8,258
Asia, Africa & Australasia			
Japan	832	815	715
Others	657	703	715
Intra-Group	160	177	120
	1,649	1,695	1,550
Continuing operations	20,806	19,690	18,563
Discontinued operations – Agrochemicals	–	3,396	3,971
Discontinued operations – Specialties	–	–	784
	20,806	23,086	23,318
Intra-Group eliminations	(4,326)	(4,983)	(4,873)
	16,480	18,103	18,445

Export sales from the UK totalled \$2,664m for the year ended 31 December 2001 (2000 \$3,429m, 1999 \$3,587m).

Notes to the Financial Statements

10 Segment information (continued)

	Operating profit after exceptional items			Profit on ordinary activities before interest and taxation		
	2001 \$m	2000 \$m	1999 \$m	2001 \$m	2000 \$m	1999 \$m
Profit from						
UK	520	666	443	523	661	278
Continental Europe	1,400	1,084	1,572	1,405	943	1,515
The Americas	1,904	1,740	478	1,914	1,740	(322)
Asia, Africa & Australasia	130	172	40	130	172	39
Continuing operations	3,954	3,662	2,533	3,972	3,516	1,510
Discontinued operations – Agrochemicals	–	346	142	–	196	144
Discontinued operations – Specialties	–	–	71	–	–	309
	3,954	4,008	2,746	3,972	3,712	1,963

	Net operating assets		
	2001 \$m	2000 \$m	1999 \$m
UK	2,558	2,037	1,873
Continental Europe	4,940	4,649	3,638
The Americas	614	184	1,130
Asia, Africa & Australasia	696	734	747
Continuing operations	8,808	7,604	7,388
Discontinued operations – Agrochemicals	–	–	1,860
Discontinued operations – Specialties	–	(126)	(164)
	8,808	7,478	9,084

	Tangible fixed assets		
	2001 \$m	2000 \$m	1999 \$m
UK	1,881	1,631	1,531
Sweden	1,251	1,327	1,434
US	895	818	623
Others	1,382	1,181	1,147
Continuing operations	5,409	4,957	4,735
Discontinued operations – Agrochemicals	–	–	1,246
	5,409	4,957	5,981

10 Segment information (continued)

	2001 \$m	2000 \$m	1999 \$m
Geographic markets			
Turnover in each geographic market in which customers located			
UK	777	795	863
Continental Europe	4,493	4,370	4,555
The Americas	9,572	8,993	8,140
Asia, Africa & Australasia	1,638	1,646	1,576
Continuing operations	16,480	15,804	15,134
Discontinued operations – Agrochemicals	–	2,299	2,657
Discontinued operations – Specialties	–	–	654
	16,480	18,103	18,445

Notes to the Financial Statements

11 Tangible fixed assets

	Land and buildings \$m	Plant and equipment \$m	Capital expenditure and assets in course of construction \$m	Total tangible assets \$m
Cost				
At beginning of year	2,552	4,557	1,092	8,201
Exchange adjustments	(118)	(226)	(37)	(381)
Additions on acquisition of subsidiaries	-	4	-	4
Capital expenditure	30	244	1,119	1,393
Transfer of assets into use	211	827	(1,038)	-
Disposals and other movements	(185)	(111)	(17)	(313)
At end of year	2,490	5,295	1,119	8,904
Depreciation				
At beginning of year	739	2,505	-	3,244
Exchange adjustments	(32)	(125)	-	(157)
Charge for year	97	520	-	617
Disposals and other movements	(51)	(158)	-	(209)
At end of year	753	2,742	-	3,495
Net book value at 31 December 2001	1,737	2,553	1,119	5,409
Net book value at 31 December 2000	1,813	2,052	1,092	4,957

Capital expenditure in the year of \$1,393m (2000 \$1,366m) did not include any capitalised finance leases (2000 \$nil). Cash expenditure on tangible fixed assets was \$1,385m (2000 \$1,347m, 1999 \$1,490m).

	2001 \$m	2000 \$m
The net book value of land and buildings comprised		
Freeholds	1,690	1,809
Long leases (over 50 years unexpired)	45	2
Short leases	2	2
	1,737	1,813

12 Goodwill and intangible assets

	Goodwill \$m	Intangible assets \$m	Total \$m
Cost			
At beginning of year	972	2,819	3,791
Exchange adjustments	(13)	(134)	(147)
Additions	41	67	108
Disposals and other movements	-	(25)	(25)
At end of year	1,000	2,727	3,727
Depreciation			
At beginning of year	122	718	840
Exchange adjustments	(1)	(51)	(52)
Charge for year	45	210	255
Disposals and other movements	-	(16)	(16)
At end of year	166	861	1,027
Net book value at 31 December 2001	834	1,866	2,700
Net book value at 31 December 2000	850	2,101	2,951

13 Fixed asset investments

	Joint ventures \$m	Other investments \$m	Total \$m
Cost			
At beginning of year	134	11	145
Additions	-	16	16
Disposals and other movements, including exchange	-	(4)	(4)
At end of year	134	23	157
Share of post-acquisition reserves			
At beginning of year	(134)	-	(134)
Retained loss	-	-	-
Exchange	-	-	-
At end of year	(134)	-	(134)
Net book value at 31 December 2001	-	23	23
Net book value at 31 December 2000	-	11	11

The fair values of other investments are not materially different from their carrying values. At 31 December 2001, the Company's share ownership trust held 201,271 Ordinary Shares.

Notes to the Financial Statements

13 Fixed asset investments (continued)

Share of joint venture assets and liabilities

	2001 \$m	2000 \$m
Gross assets	99	98
Gross liabilities	(99)	(98)
	-	-

14 Stocks

	2001 \$m	2000 \$m
Raw materials and consumables	796	543
Stocks in process	720	768
Finished goods and goods for resale	886	794
	2,402	2,105

15 Debtors

	2001 \$m	2000 \$m
Amounts due within one year		
Trade debtors	2,430	2,702
Less: Amounts provided for doubtful debts	(42)	(39)
	2,388	2,663
Deferred taxation	39	118
Other debtors	641	468
Prepayments and accrued income*	274	358
	3,342	3,607
Amounts due after more than one year		
Deferred taxation	146	189
Other debtors	23	76
Prepayments and accrued income*	117	88
	286	353
	3,628	3,960

* Figures include prepaid pension costs (Note 32).

Provisions for doubtful debts

	2001 \$m	2000 \$m	1999 \$m
Balance at beginning of year	39	118	139
Profit and loss account charge	4	34	60
Amounts utilised and other movements (incl. Agrochemicals demerger in 2000)	(1)	(113)	(81)
Balance at end of year	42	39	118

16 Short term investments

	2001 \$m	2000 \$m
Listed debt securities	288	441
Other listed investments	45	46
Investment securities	333	487
Fixed deposits	2,785	2,942
	3,118	3,429

The Group's insurance subsidiaries hold cash and short term investments totalling \$186m (2000 \$206m), of which \$105m (2000 \$132m) is required to meet insurance solvency requirements and which, as a result, is not readily available for the general purposes of the Group. In addition, some \$236m of short term investments shown above are committed as security against deferred payments due under a contractual obligation of the Group (see Note 36). The market value of other listed investments was \$145m (2000 \$165m) at the year end.

17 Short term borrowings

	2001 \$m	2000 \$m
Bank borrowings		
Fixed securities	22	21
Secured by floating charge	8	11
Unsecured	183	91
	213	123
Other borrowings (unsecured)	1	3
	214	126

Notes to the Financial Statements

18 Other creditors

	2001 \$m	2000 \$m
Amounts due within one year		
Trade creditors	2,385	3,003
Corporate taxation	1,018	891
Value added and payroll taxes and social security	173	76
Other creditors	1,219	1,132
Accruals	544	751
Dividends to shareholders	820	830
	6,159	6,683
Amounts due after more than one year		
Other creditors	152	296

Included in other creditors are amounts totalling \$104m (2000 \$117m) to meet insurance obligations of the Group's insurance subsidiaries. Also included in other creditors are amounts due within one year in connection with the Group's exceptional charges as detailed in Note 5. The amounts comprise \$116m (2000 \$248m) in respect of synergy and integration costs, \$21m (2000 \$56m) in respect of the Agrochemicals demerger and \$64m (2000 \$89m) in respect of the Specialties disposal and other minor restructurings.

19 Loans

	Repayment Dates	2001 \$m	2000 \$m
Secured loans			
Secured by fixed charge	2003/2007	48	34
Total secured		48	34
Unsecured loans			
US dollars			
Bank loan – variable rate	2001	–	80
6.3% Guaranteed notes	2003	284	283
7% Guaranteed debentures	2023	295	295
Others	2002/2013	115	27
Total unsecured		694	685
Total loans		742	719
Less: current instalments of loans		(107)	(88)
Loans due after more than one year		635	631

In the above table loans are shown after taking account of associated cross-currency swaps (see Note 20).

Loans from banks included in the table above amounted to \$156m (2000 \$119m) of which \$48m (2000 \$32m) was secured.

20 Financial instruments

A discussion of the Group's objective, policy and strategy in respect of risk management and the use of financial instruments is included in the financial review on pages 33 to 42. The following disclosures exclude all short term trade related debtors and creditors.

Interest rate risks of financial assets and liabilities

The interest rate profile, after taking account of interest and currency swaps, of the financial assets and liabilities of the Group as at 31 December 2001 was:

	Floating rate \$m	Fixed rate \$m	Financial assets/liabilities on which no interest is paid/received \$m	Total \$m	Weighted average fixed interest rate %	Weighted average period for which rate is fixed Years
Financial liabilities						
US dollar	729	8	262	999	12.2%	9.6
Sterling	2	–	–	2	–	–
Euro	4	–	–	4	–	–
Other	162	51	–	213	6.2%	4.0
	897	59	262	1,218		
Financial assets						
US dollar	2,991	–	–	2,991	–	–
Euro	146	–	–	146	–	–
Sterling	169	–	45	214	–	–
SEK	339	–	–	339	–	–
Other	133	–	23	156	–	–
	3,778	–	68	3,846		

The floating rate financial liabilities comprise largely of fixed rate debt that has been swapped into floating rate debt. One long dated \$300m US dollar bond reverts back to a fixed rate in 2009. The financial liabilities also include \$214m of short term bank borrowings and overdrafts, bearing interest at rates fixed by reference to local interbank rates.

Financial assets on which no interest is received comprise equity investments held by the Group.

Financial liabilities on which no interest is paid comprise deferred payments due relating to the reacquisition of certain marketing rights.

The financial assets principally comprise cash on overnight deposit and short term investments with an average maturity of 43 days. These include deposits where the interest rate is fixed until maturity but, as the original maturity is less than one year, they are classified as floating rate financial instruments. The benchmark rates for financial assets are the LIBID rate for euro and US dollar liquidity balances and the average Federal Funds effective rate for US dollar overnight balances. Financial assets include \$14m of other fixed asset investments on which no interest is received.

Notes to the Financial Statements

20 Financial instruments (continued)

Currency exposures

100% of the Group's transactional currency exposures on working capital balances, which typically extend for up to three months, are hedged using forward foreign exchange contracts. As a result, as at 31 December 2001, there were no material monetary assets or liabilities in currencies other than the functional currencies of the Group companies concerned, having taken into account the effect of forward exchange currency contracts that have been utilised to match foreign currency exposures.

Additionally, approximately 50% of forecast future foreign currency transaction exposures extending for 12 months are selectively hedged. The principal currency exposures (sterling, Swedish kronor, euro, Australian dollars, Canadian dollars and yen) are hedged using a mixture of purchased currency options and forward foreign exchange contracts. As at 31 December 2001 the Group held forward and option contracts to hedge the following forecast foreign currency transaction exposures:

	2001 Hedged amount \$m	2000 Hedged amount \$m
Sterling payables	1,324	1,204
SEK payables	401	635
Euro receivables	591	537
Yen receivables	89	51
AUD receivables	73	-
CAD receivables	128	-

Maturity of financial liabilities

The maturity profile of the Group's financial liabilities, other than short term creditors such as trade creditors and accruals, at 31 December 2001 was as follows:

Analysis by year of repayment	2001			2000		
	Loans \$m	Other \$m	Total \$m	Loans \$m	Other \$m	Total \$m
After five years	314	-	314	323	-	323
From five to four years	14	-	14	-	-	-
From four to three years	9	-	9	7	-	7
From three to two years	7	-	7	291	120	411
From two to one years	291	120	411	10	128	138
Due after more than one year	635	120	755	631	248	879
Due within one year	107	356	463	88	255	343
	742	476	1,218	719	503	1,222

Other financial liabilities comprise deferred payments to re-acquire certain distribution rights, short term borrowings and finance leases.

Borrowing facilities

The Group has various borrowing facilities available to it, the majority of which offer a currency option of US dollars, euros or sterling. Unused short term credit facilities (both committed and uncommitted) totalled approximately \$0.8bn at 31 December 2001. Included in this were undrawn committed facilities in respect of which all conditions precedent had been met at that date as follows:

	2001 \$m	2000 \$m
Expiring in one year or less	375	375
Expiring in more than one year but not more than two years	-	150
Expiring in more than two years	-	-
	375	525

20 Financial instruments (continued)

Fair values of financial assets and financial liabilities

Set out below is a comparison by category of carrying values and fair values of all the Group's financial assets and financial liabilities as at 31 December 2001 and 2000.

	2001 Carrying value \$m	2001 Fair value \$m	2000 Carrying value \$m	2000 Fair value \$m
Primary financial instruments				
Short term borrowings	(214)	(214)	(126)	(126)
Loans	(759)	(805)	(738)	(746)
Cash	705	705	1,021	1,021
Short term investments	3,118	3,192	3,429	3,547
Fixed asset investments	23	23	11	11
Derivative financial instruments held to manage the interest rate and currency profile				
Cross-currency swaps and interest rate swaps	17	70	19	64
Derivative financial instruments held or issued to hedge the currency exposure on existing transactions				
Forward foreign exchange contracts	11	9	(1)	(1)
Foreign currency option contracts	1	-	1	-
Derivative financial instruments held or issued to hedge the currency exposure on expected future transactions				
Forward foreign exchange contracts	-	1	-	1
Foreign currency option contracts	82	81	80	80

In addition to the primary financial instruments above, the Group has financial liabilities of \$262m comprising deferred payments due (\$276m before discounting). The Group has a standby letter of credit covering these financial liabilities which is collateralised by high grade government securities.

The methods and assumptions used to estimate the fair values of financial instruments are as follows:

- Short term investments – the fair value of listed investments is based on year end quoted market prices. For unlisted investments carrying values approximate fair value.
- Fixed asset investments (excluding equity investments in joint ventures and associates) – the fair value of listed investments is based on year end quoted market prices. For unlisted investments carrying values approximate fair value.
- Loans – the fair value of publicly traded debt is based on year end quoted market prices; the fair value of floating rate debt is nominal value, as market to market differences would be minimal given frequency of resets; the fair value of remaining debt is estimated using appropriate zero coupon valuation techniques based on rates current at year end.
- Forward foreign exchange contracts – the Group has forward foreign exchange contracts to sell currency for the purpose of hedging non-dollar commercial transaction exposures which existed at the date of the balance sheet and to hedge anticipated, but not firmly committed, non-dollar commercial transactions for 2002. The majority of the contracts for existing transactions had a maturity of six months or less from year end. The fair value of forward foreign exchange contracts is based on market forward foreign exchange rates at year end.
- Foreign currency option contracts – the Group has foreign currency option contracts to hedge anticipated, but not firmly committed, non-dollar commercial transactions for 2002. The fair value of option contracts is estimated using Black-Scholes valuation techniques as adapted by Garman and Kohlhagen.
- Interest rate and cross-currency swaps – AstraZeneca uses interest rate and cross-currency swaps to hedge the Group's exposure to fluctuations in interest rates and foreign exchange movements on borrowings in accordance with a formal risk management strategy. The fair value is estimated using appropriate zero coupon valuation techniques based on rates current at year end.

Notes to the Financial Statements

20 Financial instruments (continued)

The above financial instruments are subject to credit and market risk. AstraZeneca contains credit risk through the use of counterparty and product specific credit limits and by ongoing review procedures. All financial instruments except the letter of credit are transacted with commercial banks and, in line with standard market practice, are not backed with cash collateral. The notional principal values of off balance sheet financial instruments do not represent amounts exchanged by the parties and are not a measure of the credit risk to the Group of these instruments. The credit risk of these instruments is limited to the positive fair values of such contracts.

Market risk is the sensitivity of the value of financial instruments to changes in related currency and interest rates. The Group is not exposed to material market risk because gains and losses on the derivative financial instruments are largely offset by gains and losses on the underlying assets, liabilities and transactions subject to hedge.

Hedges

The Group's policy is to hedge 100% of transactional currency exposures and 50% of forecast future transaction exposures using forward foreign exchange contracts and foreign currency option contracts. It also uses cross-currency and interest rate swaps to manage its borrowings profile.

Gains and losses on instruments used for hedging are not recognised until the exposure that is being hedged is itself recognised. Unrecognised gains and losses on instruments used for hedging are as follows:

	Gains \$m	Losses \$m	Total net gains \$m
Unrecognised gains and losses on hedges at 1 January 2001	46	(1)	45
Gains and losses arising in previous years that were recognised in 2001	13	(1)	12
Gains and losses arising in previous years that were not recognised in 2001	33	-	33
Unrecognised gains and losses on hedges at 31 December 2001	54	(4)	50
Gains and losses expected to be recognised in 2002	29	(4)	25
Gains and losses expected to be recognised in 2003 or later	25	-	25

21 Provisions for liabilities and charges

	Integration and synergies \$m	Employee benefits \$m	Environmental and other provisions \$m	Total \$m
At 1 January 2000	114	780	359	1,253
Profit and loss account	304	109	100	513
Net amounts paid or becoming current	(386)	(23)	(99)	(508)
Disposals	-	(84)	(72)	(156)
Other movements, including exchange	(7)	(28)	1	(34)
At 31 December 2000	25	754	289	1,068
Profit and loss account	156	103	165	424
Net amounts paid or becoming current	(148)	(306)	(55)	(509)
Acquisitions	-	1	-	1
Other movements, including exchange	(18)	(23)	(47)	(88)
At 31 December 2001	15	529	352	896

Employee benefit provisions comprise pension, post retirement and other employee benefit provisions. These will crystallise, in the main, over the estimated working lives of the employees concerned. The environmental provisions are principally in respect of sites in the US, further details of which are given in Note 36. Other provisions include \$204m (2000 \$85m) in respect of deferred taxation.

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

22 Reconciliation of movements in shareholders' funds

	2001 \$m	2000 \$m	1999 \$m
Shareholders' funds at beginning of year	9,521	10,302	10,929
Net profit for the financial year	2,967	2,538	1,143
Dividends			
Cash	(1,225)	(1,236)	(1,242)
Dividend in specie	-	(1,669)	-
	1,742	(367)	(99)
Issues of AstraZeneca PLC Ordinary Shares	86	19	19
Repurchase of AstraZeneca PLC Ordinary Shares	(1,080)	(353)	(183)
Astra AB minority interest buyout	-	(8)	(142)
Goodwill written back	-	862	410
Exchange adjustments on net assets	(495)	(1,038)	(619)
Translation differences on foreign currency borrowings	18	154	(6)
Tax on translation differences on foreign currency borrowings	(6)	(42)	(5)
Other movements	-	(8)	(2)
Net addition to/(reduction in) shareholders' funds	265	(781)	(627)
Shareholders' funds at end of year	9,786	9,521	10,302

23 Reserves

	Share premium account \$m	Capital redemption reserve \$m	Merger reserve \$m	Other reserves \$m	Joint ventures and associates \$m	Profit and loss account \$m	Total \$m
At 31 December 1998	54	-	583	56	(12)	9,648	10,329
Loss retained for year					(16)	(83)	(99)
Share premiums	17						17
Redenomination of share capital				157			157
Transfer between reserves	131					(131)	-
Repurchase of shares		1				(183)	(182)
Astra AB minority interest buyout			(142)				(142)
Goodwill written back				410			410
Exchange adjustments:							
Goodwill				80		(80)	-
Net assets					1	(620)	(619)
On foreign currency borrowings						(6)	(6)
Foreign currency borrowings tax effect						(5)	(5)
				80	1	(711)	(630)
Other movements						(2)	(2)
Net movements	148	1	(142)	647	(15)	(1,110)	(471)

Notes to the Financial Statements

23 Reserves (continued)

	Share premium account \$m	Capital redemption reserve \$m	Merger reserve \$m	Other reserves \$m	Joint ventures and associates \$m	Profit and loss account \$m	Total \$m
At 31 December 1999	202	1	441	703	(27)	8,538	9,858
Loss retained for year					(157)	(210)	(367)
Share premiums	19						19
Transfer between reserves	14					(14)	-
Astra AB minority interest buyout			(8)				(8)
Repurchase of shares		2				(353)	(351)
Goodwill written back				862			862
Exchange adjustments:							
Goodwill				67		(67)	-
Net assets					1	(1,039)	(1,038)
On foreign currency borrowings						154	154
Foreign currency borrowings tax effect						(42)	(42)
				67	1	(994)	(926)
Other movements				2	-	(10)	(8)
Net movements	33	2	(8)	931	(156)	(1,581)	(779)
At 31 December 2000	235	3	433	1,634	(183)	6,957	9,079
Profit retained for year						1,742	1,742
Share premiums	86						86
Transfer between reserves	13					(13)	-
Repurchase of shares		6				(1,080)	(1,074)
Exchange adjustments:							
Goodwill				19		(19)	-
Net assets						(495)	(495)
On foreign currency borrowings						18	18
Foreign currency borrowings tax effect						(6)	(6)
				19		(502)	(483)
Net movements	99	6	-	19	-	147	271
At 31 December 2001	334	9	433	1,653	(183)	7,104	9,350

The movement in other reserves in 1999 relates to the realisation of goodwill, principally on the disposal of Zeneca Specialties and the redenomination of share capital. The movement in 2000 relates to the realisation of goodwill in respect of the demerger of Zeneca Agrochemicals (\$813m) and the impairment of the Advanta seeds business goodwill (\$49m).

The cumulative amount of goodwill resulting from acquisitions, net of disposals, prior to the adoption of FRS 10 in 1998, amounted to \$587m (2000 \$606m, 1999 \$1,587m) using 2001 year end rates of exchange.

There are no significant statutory or contractual restrictions on the distribution of current profits of subsidiaries, joint ventures or associates; undistributed profits of prior years are, in the main, permanently employed in the businesses of these companies. The undistributed income of AstraZeneca companies overseas may 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 7).

24 Net cash inflow from trading operations

	2001 \$m	2000 \$m	1999 \$m
Operating profit before exceptional items	4,156	4,330	3,908
Depreciation and amortisation	860	988	1,069
Stocks increase	(417)	(670)	(416)
Debtors decrease/(increase)	138	(987)	(448)
Creditors (decrease)/increase	(727)	1,317	645
Other non-cash movements	120	14	(59)
	4,130	4,992	4,699

25 Cash flows related to exceptional items

	2001 \$m	2000 \$m	1999 \$m
Current period cash flow related to exceptional items and merger related payments, before associated tax charge/relief			
Merck trigger event payment	-	(93)	(713)
Merger, integration and synergy costs	(312)	(532)	(527)
Salick Health Care rationalisation	-	(11)	12
Agrochemicals restructuring	-	(46)	(20)
Costs relating to the disposal of Specialties business	(22)	(62)	(338)
Demerger of Zeneca Agrochemicals and formation of Syngenta AG	(34)	(65)	-
Outflow related to exceptional charges	(368)	(809)	(1,586)
Proceeds from the disposal of Specialties business (included in 'Acquisitions and disposals')	-	-	1,956
Repayment of debt by Zeneca Agrochemicals (included in 'Acquisitions and disposals')	-	909	-
Proceeds from disposal of fixed assets accounted for as exceptional	10	-	-
Exceptional item cash flow	(358)	100	370
'First Option' payment to Merck (included in 'Net cash expenditure on fixed assets')	-	-	(967)
Exceptional and merger related cash flow	(358)	100	(597)

Notes to the Financial Statements

26 Acquisitions of subsidiaries and purchases of minority interests

There were no significant business acquisitions in any of the years presented. All acquisitions have been accounted for by the acquisition method of accounting.

	2001 Total fair value \$m	2000 Total fair value \$m	1999 Total fair value \$m
Fixed assets	4	-	-
Current assets	26	-	10
Creditors due within one year	(16)	-	(7)
Provisions for liabilities and charges	(1)	-	-
Minority interest	-	-	(1)
Fair value of net assets acquired	13	-	2
Goodwill acquired	41	32	7
Consideration for subsidiaries and operations acquired	54	32	9
Purchases of minority interests	(7)	135	20
	47	167	29
Less:			
Cash included in undertaking acquired	(3)	-	(1)
Deferred consideration	-	-	(5)
Net cash consideration	44	167	23

Assets and liabilities are adjusted to their fair values based on external valuations and internal assessments. There were no significant differences between book and fair values in respect of the acquisitions made in any of the years presented.

27 Zeneca Agrochemicals demerger

On 13 November 2000 Zeneca Agrochemicals was demerged from the Group and merged with the agribusiness of Novartis to form Syngenta AG. The Zeneca Agrochemicals results for the period to 13 November have been reported as discontinued in the AstraZeneca accounts for the year ended 31 December 2000 and prior years. The demerger of Zeneca Agrochemicals was accounted for as a dividend in specie. The impact of the demerger on the year ended 31 December 2000 is set out below.

	\$m
Fixed assets	1,491
Current assets	2,130
Creditors due within one year	(1,306)
Creditors due after more than one year and provisions	(246)
Book value of Zeneca Agrochemicals net assets disposed	2,069
Minority interest share of net assets	(10)
Goodwill previously charged to reserves written back	813
	2,872
Repayment of debt by Zeneca Agrochemicals	
Net repayment of debt per Cash Flow Statement	(909)
Net financial liabilities demerged	(294)
	(1,203)
Dividend in specie	1,669

In the year ended 31 December 2000, prior to its demerger, the Agrochemicals business contributed \$173m to operating cash flows before exceptional items, and absorbed \$78m in respect of exceptional items and \$149m in respect of capital expenditure.

28 Disposals

	2001 \$m	2000 \$m	1999 \$m
Fixed assets	-	-	567
Current assets	-	-	651
Creditors due within one year	-	-	(374)
Creditors due after more than one year and provisions	-	-	(18)
Book value of net assets disposed	-	-	826
Disposal costs	-	-	577
Goodwill previously charged to reserves written back on disposal	-	-	410
Profit on disposals	-	-	237
	-	-	2,050
Less:			
Cash included in undertakings disposed	-	-	(20)
Disposal costs	-	-	(49)
Cash consideration	-	-	1,981

There were no significant disposals in 2001 or 2000. In 1999 the sale consideration received was principally in relation to the sale of the Group's Specialties business, which was completed on 30 June 1999. Zeneca Specialties results were consolidated for the period until disposal (to 30 June 1999) but reported separately as 'discontinued operations'. In the year ended 31 December 1999, prior to its disposal, the Specialties business contributed \$44m to operating cash flows before exceptional items, and absorbed \$29m in respect of exceptional items and \$41m in respect of fixed capital expenditure. The dialysis business of Salick Health Care was disposed of for \$25m in 1999.

Notes to the Financial Statements

29 Reconciliation of net cash flow to movement in net funds

	2001 \$m	2000 \$m	1999 \$m
(Decrease)/increase in cash	(396)	640	(280)
Cash (inflow)/outflow from (increase)/decrease in loans and short term borrowings	(35)	66	21
Cash (inflow)/outflow from (decrease)/increase in short term investments	(260)	608	254
Change in net funds resulting from cash flows	(691)	1,314	(5)
Debt released on disposals	-	127	12
Other non-cash changes	-	48	-
Exchange movements	(47)	(53)	(92)
Movement in net funds	(738)	1,436	(85)
Net funds at 1 January	3,605	2,169	2,254
Net funds at 31 December	2,867	3,605	2,169

30 Analysis of net funds

	At 1 Jan 2001 \$m	Cash flow \$m	Acquisitions* and disposals \$m	Other non-cash \$m	Exchange movements \$m	At 31 Dec 2001 \$m
Loans due after one year	(631)	(11)	-	8	(1)	(635)
Current instalments of loans	(88)	(17)	-	(8)	6	(107)
Total loans	(719)	(28)	-	-	5	(742)
Short term investments	3,429	(260)	-	-	(51)	3,118
Cash	1,021	(299)	-	-	(17)	705
Overdrafts	(113)	(97)	-	-	15	(195)
Short term borrowings, excluding overdrafts	(13)	(7)	-	-	1	(19)
	4,324	(663)	-	-	(52)	3,609
Net funds	3,605	(691)	-	-	(47)	2,867
Financing items included in cash movements above:						
Issue of shares		(86)				
Repurchase of shares		1,080				
Net cash inflow before management of liquid resources and financing		303				

* Excluding cash and overdrafts

31 Financing

	Notes	2001 \$m	2000 \$m	1999 \$m
Issues of AstraZeneca PLC Ordinary Shares	30	86	19	19
Repurchase of AstraZeneca PLC Ordinary Shares	30	(1,080)	(353)	(183)
Issue of shares by subsidiaries to minority interests		-	-	3
		(994)	(334)	(161)
Repayment of lease finance	30	-	(2)	(6)
New loans		220	39	39
Loans repaid		(192)	(36)	(40)
Net increase/(decrease) in short term borrowings	30	7	(67)	(14)
		35	(64)	(15)
Net cash outflow from financing		(959)	(400)	(182)

The only major non-cash financing transaction occurred in 1999 and was the issue of 826 million shares to Astra shareholders in connection with the merger.

32 Post-retirement benefits

Pensions

The Company, and most of its subsidiaries, operate or participate in retirement plans which cover the majority of employees (including Directors) in the Group. These plans are either defined contribution, where the level of company contribution is fixed at a set level or percentage of employees' pay, or defined benefit, where benefits are based on employees' years of service and final pensionable pay. The trend recently has been towards defined contribution arrangements and in 2001 the Group's defined benefit plans in the UK and US were closed to new entrants. The major plans are funded through separate trustee-administered funds. The pension cost for the Group's main defined benefit plans is established in accordance with the advice of independent qualified actuaries based on valuations undertaken on varying dates.

With regard to the Group's main UK defined benefit fund, the latest actuarial valuation was carried out at 31 March 2001 and the pension cost assessed using the projected unit credit method. The key assumptions used for determining the past service financial position of the fund for accounting purposes differ from those used for funding purposes, with the latter being more conservative. The significant assumptions used for this accounting purpose were that, against a background of long term UK price inflation averaging 2.5% pa, investment returns would average 6.5% pa, salary increases 4.3% pa, and pension increases 2.5% pa. The market value of the UK fund's assets at the valuation date was £2,118m (\$3,071m), equivalent, after allowing for future increases in earnings and pensions, to 98% of the benefit obligation that had accrued to members at the valuation date using the accounting basis, or 92% if the actuary's funding basis were to be used. The regular pension cost for accounting purposes has been determined using an assumed long term rate of return of 6.9% leading to a cost of 16.9% of members' total pensionable salaries. The Group has increased its total contributions to the fund in accordance with the actuary's advice.

The US defined benefits programme is actuarially revalued annually using the projected unit credit method. At 31 December 2001 US plan obligations were estimated to amount to \$812m. The US entity typically makes annual contributions to provide fully for those plan benefit obligations.

The Swedish plan for salaried employees is administered by PRI Pensionstjänst AB, a joint company for Swedish industry, and benefit levels and actuarial assumptions are established by Alecta. AstraZeneca AB is establishing separate trustee administered funds to support its pension liabilities.

In total the Group's main funded defined benefit plans held assets at their most recent valuation dates whose market values amounted to \$4,041m. After allowing for future increases in earnings and pensions, 96% of the benefit obligation assessed on an accounting basis that had accrued to members at the valuation dates were covered by the value of the assets of the plans and by the value of provisions set aside in subsidiary companies' accounts at the same dates.

The total pension cost for the Group for 2001 was \$194m (2000 \$184m, 1999 \$202m). In the Group balance sheet at 31 December 2001, accrued pension costs amounted to \$76m (2000 \$23m) and were included in other creditors (Note 18); provisions for unfunded benefit obligations, included in provisions (Note 21), amounted to \$357m (2000 \$413m). Prepaid pension costs amounting to \$47m (2000 \$4m) were included in debtors (Note 15).

Notes to the Financial Statements

32 Post-retirement benefits (continued)

Disclosures in respect of FRS 17

The above figures have been prepared in accordance with the requirements of the current UK Statement of Standard Accounting Practice (SSAP 24) for accounting for pension costs. The UK has published a new Financial Reporting Standard (FRS 17) which will change the basis on which defined benefit pension costs and funding position are calculated and reported for accounting purposes. FRS 17 has to be implemented in full by 2003 but supplementary disclosure is required in accounts from 2001 onwards. The accounting requirements of FRS 17 are broadly as follows:

- Pension scheme assets are valued at market values at the balance sheet date;
- Pension scheme liabilities are measured using a projected unit method and discounted at the current rate of return on high quality corporate bond of equivalent term and currency to the liability;
- For accounting periods ending on or after 22 June 2003 the pension scheme surplus (to the extent it is considered recoverable) or deficit will be recognised in full and presented on the face of the balance sheet;
- The movement in the scheme surplus/deficit will be split between operating charges, financing items and, in the statement of total recognised gains and losses, actuarial gains and losses.

Supplementary disclosures on an FRS 17 basis are set out below:

Qualified independent actuaries updated the actuarial valuations of the major defined benefit schemes operated by the Group to 31 December 2001. The main financial assumptions used in this update were as follows:

	UK	Rest of Group
Inflation assumption	2.5%	2.7%
Rate of increase in salaries	4.3%	4.6%
Rate of increase in pensions in payment	2.5%	0.5%
Discount rate	5.8%	6.2%

The assets and liabilities of the major defined benefit schemes operated by the Group at 31 December 2001 are as follows:

	UK Value at 31/12/01 \$m	Rest of Group Value at 31/12/01 \$m
Equities	1,255	409
Bonds	1,831	214
Others	59	131
Total fair value of assets	3,145	754
Present value of scheme liabilities	(3,552)	(1,310)
Deficit in the scheme	(407)	(556)
Related deferred tax asset*	122	183
Net pension liability	(285)	(373)

* Calculated on the full provision basis in accordance with FRS19

The scheme deficits shown above are before taking account of prepayments (UK: \$47m) or creditors and provisions (Rest of Group: \$389m) which are already included in the accounts with respect to these schemes. These balances will, in aggregate and net of deferred tax, reduce the impact on the balance sheet of incorporating the pension deficit on the introduction of FRS17.

Post-retirement benefits other than pensions

In the US, and to a lesser extent in some other countries, AstraZeneca's employment practices include the provision of healthcare and life insurance benefits for retired employees. Some 7,247 retired employees and covered dependants currently benefit from these provisions and some 12,537 current employees will be eligible on retirement. AstraZeneca accrues for the present value of such retiree obligations over the working life of the employee.

The cost of post-retirement benefits other than pensions for the Group in 2001 was \$16m (2000 \$25m, 1999 \$21m). Provisions and creditors set aside for the benefit obligations at 31 December 2001 amounted to \$248m (2000 \$233m, 1999 \$232m). Other than this provision there were no plan assets at 31 December 2001.

33 Employee costs and share option plans for employees

Employee costs

The average number of people employed by the Group in 2001 was 52,600 (2000 57,000, 1999 58,000) and the costs incurred during the year in respect of these employees were:

	2001 \$m	2000 \$m	1999 \$m
Salaries	2,701	2,862	2,849
Social security costs	465	464	479
Pension costs	194	184	202
Other employment costs	182	170	194
	3,542	3,680	3,724

Employee costs above do not include severance costs.

The Directors believe that, together with the basic salary system, the Group's employee incentive schemes should provide a competitive and market-related package 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.

The AstraZeneca UK Performance Bonus Plan

Employees of participating AstraZeneca UK companies are invited to participate in this bonus plan which rewards good performance at corporate, function/business and individual/team levels. Depending upon performance and upon which level it is measured, bonuses may be paid partly in the form of free Ordinary Shares in the Company (under the Inland Revenue approved AstraZeneca All-Employee Share Plan and up to a maximum annual value of £3,000) and partly in cash. A tax efficient share retention scheme, under which employees leave their bonus shares in trust for three to five years, forms part of the All-Employee Share Plan. Existing Ordinary Shares are used to satisfy the free share element of bonuses under this plan and are purchased in the market.

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 Savings-Related Share Option Scheme

UK employees may make regular monthly savings contributions over a three or five year period and may apply for options to acquire AstraZeneca shares. Further details are set out below.

The AstraZeneca Share Option Plan

This is a share option plan for employees of participating AstraZeneca Group companies which was approved by shareholders at the Company's AGM in May 2000. The first grant of options occurred in August 2000 and further grants were made in March and August 2001. The Remuneration Committee sets the policy for the Company's operation of the plan. Further details are set out below.

Sweden

In Sweden an all employee performance bonus plan is in operation. The plan rewards good performance at corporate, function and individual/team level. Bonuses for corporate and function performance are always paid in the form of AstraZeneca Ordinary Shares. Bonuses for individual/team performance are always paid in cash. Existing Ordinary Shares are used to pay bonuses awarded under the plan. These are purchased in the market. They must be left in trust for three years.

The AstraZeneca Executive Annual Bonus Scheme and the AstraZeneca Share Option Plan both operate in respect of relevant AstraZeneca employees in Sweden.

US

In the US, there are four senior staff incentive schemes, under which either AstraZeneca ADSs or stock appreciation rights related to AstraZeneca ADSs are awarded to participants. There are currently approximately 235 participants in these schemes. AstraZeneca ADSs necessary to satisfy the awards under these schemes are purchased in the market and no subscriptions for new Ordinary Shares have been involved.

The AstraZeneca Executive Annual Bonus Scheme and the AstraZeneca Share Option Plan both operate in respect of relevant AstraZeneca employees in the US.

Notes to the Financial Statements

33 Employee costs and share option plans for employees (continued)

Share Option Plans

At 31 December 2001, there were options outstanding under the Zeneca 1993 Senior Staff Share Option Scheme, the Zeneca 1994 Executive Share Option Scheme, the Astra Shareholder Value Incentive Plan, the AstraZeneca Savings-Related Share Option Scheme and the AstraZeneca Share Option Plan.

(1) Summary of the Zeneca 1993 Senior Staff Share Option Scheme

The Zeneca 1993 Senior Staff Share Option Scheme was introduced at the time of the demerger of Zeneca from ICI in 1993. The last date for the grant of options was 19 May 1994 and the scheme was replaced by the Zeneca 1994 Executive Share Option Scheme.

(2) Summary of the Zeneca 1994 Executive Share Option Scheme

The Zeneca 1994 Executive Share Option Scheme was introduced in 1994. The last date for the grant of options was 16 March 2000 and the scheme has been replaced by the AstraZeneca Share Option Plan.

Options granted under the 1994 scheme will normally be exercisable between three and ten years following grant provided the relevant performance condition has been satisfied. Options may be satisfied by the issue of new shares or by existing shares purchased in the market.

Options will not normally be exercisable unless a performance condition set by the Remuneration Committee has been satisfied. The performance condition is that earnings per share must grow by at least the increase in the UK Retail Price Index over three years plus 3% per annum. Satisfaction of this condition is tested annually by reference to the audited financial statements. Once the condition is satisfied in respect of any rolling three year period beginning no earlier than the end of the financial year prior to the grant of the option, then it need not be satisfied again in respect of that option. The Remuneration Committee reviews the performance conditions at intervals to ensure that they continue to be appropriate.

(3) Summary of the Astra Shareholder Value Incentive Plan

In 1996, Astra established a stock option plan for some 100 Astra employees in key senior positions. The plan is no longer used for the grant of options and has been superseded by the AstraZeneca Share Option Plan.

On completion of the merger with Zeneca, options in Astra shares granted under the plan were replaced by options to acquire a number of AstraZeneca shares based on the exchange ratio used in the exchange offers used to effect the AstraZeneca merger. The ratio of AstraZeneca options granted in respect of former Astra options was 0.5045 AstraZeneca options for each Astra option held and the table shown on page 86 has been restated throughout accordingly.

(4) Summary of the AstraZeneca Savings-Related Share Option Scheme

Eligibility

UK resident employees of participating AstraZeneca companies are automatically eligible to participate.

Grant of options

Invitations to apply for options may be issued within six weeks after the announcement by the Company of its results for any period and at other times in circumstances considered to be exceptional by the Directors. No invitations may be issued later than 10 years after the approval of the scheme by shareholders.

Options may only be granted to employees who enter into UK Inland Revenue approved savings contracts with the savings body nominated by the Company, under which monthly savings of a fixed amount (currently not less than £5 nor more than £250) are made over a period of three or five years. The number of shares over which an option is granted will be such that the total amount payable on its exercise will be the proceeds on maturity of the related savings contract. No payment will be required for the grant of an option. Options are not transferable.

Individual participation

Monthly savings by an employee under all savings contracts linked to options granted under any SAYE scheme may not exceed £250 or such lower amounts as may be determined by the Directors.

Acquisition price

The price per Ordinary Share payable upon the exercise of an option will not normally be less than the higher of:

- (a) 90% of the arithmetical average of the middle-market quotations for an Ordinary Share on the London Stock Exchange on three consecutive dealing days shortly before the date on which invitations to apply for options are issued (provided that no such day may fall before the Company last announced its results for any period) or such other dealing day or days falling within the six week period for the issue of invitations as the Directors may decide; and
- (b) the nominal value of an Ordinary Share (unless the option is expressed to relate only to existing shares).

33 Employee costs and share option plans for employees (continued)

Exercise of options

An option will normally be exercisable only for six months commencing on the third or fifth anniversary of the commencement of the related savings contract. Options may be satisfied by the issue of new shares or by existing shares purchased in the market.

Options normally lapse on cessation of employment. Exercise is, however, permitted for a limited period (irrespective of the period during which the option has been held) following cessation of employment in certain compassionate circumstances or where an option has been held for more than three years (except on dismissal for misconduct) and on an amalgamation, take-over or winding-up of the Company.

AstraZeneca has chosen to avail itself of the exemption to application of UITF17 (revised) to its SAYE scheme.

(5) Summary of the AstraZeneca Share Option Plan

Eligibility

Any AstraZeneca employee may be recommended from time to time for the grant of an option. The Remuneration Committee sets the policy for the Company's operation of the plan including as regards which employees will be eligible to participate.

Grant of options

Options may be granted at any time other than during a close period. No options may be granted after the fifth anniversary of the approval of the plan by shareholders until the Remuneration Committee has reviewed the plan.

The grant of options is supervised by the Remuneration Committee which is comprised wholly of Non-Executive Directors. No payment is required for the grant of an option. Options are not transferable.

Options may be granted over Ordinary Shares in AstraZeneca PLC or over the Company's ADSs.

Acquisition price

The price per Ordinary Share payable upon the exercise of an option will not be less than an amount equal to the average of the middle-market closing price on the date of grant for an Ordinary Share of the Company on the London Stock Exchange on the three consecutive dealing days immediately before the date of grant (or as otherwise agreed with the Inland Revenue). Where the option is an option to subscribe, the price payable upon exercise cannot be less than the nominal value of an Ordinary Share of the Company.

Exercise of options

An option will normally be exercisable between three and ten years following its grant provided any relevant performance condition has been satisfied. Options may be satisfied by the issue of new shares or by existing shares purchased in the market.

The Remuneration Committee sets the policy for the Company's operation of the plan including as regards whether any performance target(s) will apply to the grant and/or exercise of each eligible employee's option.

Options normally lapse on cessation of employment. Exercise is, however, permitted for a limited period following cessation of employment either for reasons of injury or disability, redundancy or retirement, or at the discretion of the Remuneration Committee, and on an amalgamation, take-over or winding-up of the Company.

Notes to the Financial Statements

33 Employee costs and share option plans for employees (continued)

	AstraZeneca Share Option Plan		1994 Scheme		SAYE Scheme		Shares under option '000	ASVIP WAEP* SEK
	Options '000	WAEP* pence	Options '000	WAEP* pence	Options '000	WAEP* pence		
At 1 January 1999								
Options outstanding			2,664	1618	5,940	1252	1,249	361
Movements during 1999								
Options granted			810	2584	1,211	2264	Nil	
Options exercised			(432)	1205	(2,376)	860	Nil	
Options forfeited			(41)	1893	(387)	1665	Nil	
Options lapsed			Nil		Nil		Nil	
Weighted average fair value of options granted during the year				827		856		
At 31 December 1999								
Options outstanding	Nil	Nil	3,001	1934	4,388	1708	1,249	361
Movements during 2000								
Options granted	712	3093	8,885	2714	723	2806	Nil	-
Options exercised	Nil	Nil	(800)	1525	(1,078)	1117	(159)	303
Options forfeited	Nil	Nil	(99)	2675	(207)	1843	Nil	-
Options lapsed	Nil	Nil	Nil	-	Nil	-	Nil	-
Weighted average fair value of options granted during the year		809		712		396		
At 31 December 2000								
Options outstanding	712	3093	10,987	2588	3,826	2074	1,090	370
Movements during 2001								
Options granted	10,984	3245	-	-	649	2971	-	-
Options exercised	(1)	3093	(592)	1687	(1,125)	1583	(117)	328
Options forfeited	(296)	3231	(457)	2709	(551)	2181	(8)	306
Options lapsed	-	-	-	-	-	-	-	-
Weighted average fair value of options granted during the year		653				495		
At 31 December 2001								
Options outstanding	11,399	3236	9,938	2636	2,799	2459	965	375
Range of exercise prices	3093p to 3335p		826p to 2749p		1357p to 2971p		298 SEK to 442 SEK	
Weighted average remaining contractual life	3362 days		2889 days		1182 days		995 days	
Options exercisable	112	3196	1,290	2181	44	1494	965	375

* Weighted Average Exercise Price

In addition to the schemes disclosed above at 31 December 2001 there were 25,000 options outstanding issued under the Zeneca 1993 Senior Staff Share Option Scheme with a weighted average exercise price of 742p.

34 Directors' interests in shares and debentures

The interests at 31 December 2001 or on date of resignation of the persons who on that date were Directors (including the interests of their families) in shares and debentures of the Company and its subsidiaries are shown below, all of which were beneficial except as otherwise stated.

	Interest in Ordinary Shares, including shares held in trust, at 1 January 2001 or appointment date	Shares held in trust at 1 January 2001 or appointment date	Net shares acquired	Interest in Ordinary Shares, including shares held in trust, at 31 December 2001 or resignation date	Shares held in trust at 31 December 2001 or resignation date
Percy Barnevik	100,000	-	-	100,000	-
Håkan Mogren	65,706	9,966	-	65,706	9,966
Tom McKillop	73,935	20,190	508	74,443	16,824
Åke Stavling	8,578	8,041	351	8,929	8,041
Jonathan Symonds	14,042	11,090	272	14,314	10,774
Claes Wilhelmsson	27,123	8,774	339	27,462	8,774
Sir Peter Bonfield	500	-	-	500	-
Jane Henney	500	-	-	500	-
Karl von der Heyden	20,000	-	-	20,000	-
Erna Möller	2,718	-	-	2,718	-
Dame Bridget Ogilvie	500	-	-	500	-
Lars Ramqvist	500	-	-	500	-
Marcus Wallenberg	74,504	-	-	74,504	-
Former Directors					
Sir David Barnes	217,634	12,148	-	217,634	12,148

No Director or senior executive beneficially owns, or has options over, 1% or more of the outstanding shares of the Company, nor do they have different voting rights to other shareholders.

Shares held in trust above include both long term incentive bonus shares appropriated under the Zeneca Executive Performance Bonus Scheme and also shares allocated on the demerger of Zeneca Agrochemicals, in respect of executive share options held on 10 November 2000, and which have not yet been released. In respect of the latter, the shares generally will not become beneficially owned by Directors until 13 November 2003.

Notes to the Financial Statements

34 Directors' interests in shares and debentures (continued)

The interests of Directors in options to subscribe for Ordinary Shares of the Company, which include options granted under the AstraZeneca Savings-Related Share Option Scheme, together with options granted and exercised during the year are included in the following table:

		No. of shares under option	Exercise price per share†	Market price at date of exercise	First date exercisable*	Last date exercisable*
Håkan Mogren	At 1 Jan 2001	95,802	2818p		13.12.02	22.08.10
	Granted	41,615	3244p		29.03.04	28.03.11
	At 31 Dec 2001	137,417	2947p		13.12.02	28.03.11
Tom McKillop	At 1 Jan 2001	193,889	2020p		05.04.97	22.08.10
	Granted	65,745	3244p		29.03.04	28.03.11
	Granted	130	2971p		01.12.04	31.05.05
	Exercised	(508)	1357p	3071p	01.12.01	31.05.02
	At 31 Dec 2001	259,256	2332p		05.04.97	28.03.11
Åke Stavling	At 1 Jan 2001	58,304	2693p		26.05.02	22.08.10
	Granted	25,893	3244p		29.03.04	28.03.11
	At 31 Dec 2001	84,197	2862p		26.05.02	28.03.11
Jonathan Symonds	At 1 Jan 2001	102,155	2518p		01.10.00	22.08.10
	Granted	28,483	3244p		29.03.04	28.03.11
	Granted	195	2971p		01.12.04	31.05.05
	Exercised	(272)	2146p	3071p	01.12.01	31.05.02
	At 31 Dec 2001	130,561	2678p		01.10.00	28.03.11
Claes Wilhelmsson	At 1 Jan 2001	64,110	2683p		26.05.02	22.08.10
	Granted	28,483	3244p		29.03.04	28.03.11
	At 31 Dec 2001	92,593	2855p		26.05.02	28.03.11
Sir David Barnes	At 1 Jan 2001	141,031	992p		28.05.95	17.11.03
	At resignation date	141,031	992p		28.05.95	17.11.03

† Exercise prices at 1 January and 31 December are weighted averages.

* First and last exercise dates of groups of options, within which periods there are shorter exercise periods.

In addition to the above the following Directors held options under the Astra Shareholder Value Incentive Plan which were converted into options over AstraZeneca shares on completion of the merger based on an exchange ratio of 0.5045 AstraZeneca options for each Astra option held. None of these options were exercised during 2001 and no further options have been or will be granted under the scheme:

Håkan Mogren	At 1 Jan 2001	37,480	359SEK	06.04.99	23.01.06
	At 31 Dec 2001	37,480	359SEK	06.04.99	23.01.06
Åke Stavling	At 1 Jan 2001	16,193	369SEK	06.04.99	23.01.06
	At 31 Dec 2001	16,193	369SEK	06.04.99	23.01.06
Claes Wilhelmsson	At 1 Jan 2001	17,168	365SEK	06.04.99	23.01.06
	At 31 Dec 2001	17,168	365SEK	06.04.99	23.01.06

The aggregate amount of gains made by Directors on the exercise of share options during the year amounted to \$0.02m (2000 \$0.8m, 1999 \$0.1m) and the gains made by the highest paid Director were \$13,000 (2000 \$nil, 1999 \$47,000). The market price of the shares at 31 December 2001 was 3098p and the range during 2001 was 2880p to 3555p. The Register of Directors' Interests (which is open to inspection) contains full details of Directors' shareholdings and options to subscribe.

35 Emoluments of Directors

The aggregate remuneration, excluding pension contributions, paid to or accrued for all Directors and officers of the Company for services in all capacities during the year ended 31 December 2001 was \$14m (including \$368,000 to the Chairman). Remuneration of individual Directors was as follows:

	Salary and fees \$'000	Bonuses \$'000	Taxable benefits \$'000	Other \$'000	Total 2001 \$'000	Total 2000 \$'000	Total 1999 \$'000
Percy Barnevik	368				368	385	300
Håkan Mogren	1,017	496	110		1,623	1,564	1,500
Tom McKillop	1,191	588	29	110*	1,918	1,917**	1,741
Åke Stavling	642	312	93		1,047	934	842
Jonathan Symonds	732	347	2	118†	1,199	1,245	1,149
Claes Wilhelmsson	629	295	14		938	1,074	885
Sir Peter Bonfield	56				56	59	57
Jane Henney	13				13	-	-
Karl von der Heyden	60				60	63	61
Erna Möller	56			25#	81	69	46
Dame Bridget Ogilvie	56			25#	81	69	57
Lars Ramqvist	60				60	63	49
Marcus Wallenberg	56				56	59	46
Former Directors							
Sir David Barnes	34				34	577	1,217
Others					-	889	2,245
Total	4,970	2,038	248	278	7,534	8,967	10,195

* Relates to relocation allowances

† Payment for pension related tax liabilities

Fees for AstraZeneca Scientific Advisory Board

** The 2000 emoluments have been increased by \$95,000 to correct the relocation allowances previously reported

The remuneration of Directors is (with minor exceptions), established and paid in either Swedish kronor (Claes Wilhelmsson) or pounds sterling (other Directors) and has been converted into US dollars in the table above at the average exchange rate for the year in question. These rates were:

	GBP/USD	SEK/USD
1999	0.62	8.21
2000	0.65	8.91
2001	0.68	10.79

The movement of exchange rates affects the year on year comparison of the dollar amounts.

Some Directors and officers were also granted options to subscribe for Ordinary Shares under the Group's share option schemes. Details of share options granted to, and exercised by, Directors and the aggregate of gains realised on exercised options in the year are given on page 88.

In accordance with English law and practice there are written conditions of employment between AstraZeneca and all its monthly salaried employees. Contracts of employment of Directors and officers have notice periods of two years subject to retirement, normally, on reaching the age of 62 years (unless extended by mutual consent).

No Director or officer has a family relationship with any other Director or officer.

Transactions with Directors

During the year there were no recorded transactions between the Company and the Directors.

The remuneration of the Executive Directors is determined by the Remuneration Committee on behalf of the Board and is comprised entirely of Non-Executive Directors and chaired by Lars Ramqvist. Remuneration above consists of annual salary, health and car benefits, a bonus scheme and an executive share option scheme. Salaries are reviewed each year in the light of comparison with other companies, the performance of the Company and individual experience and contribution. Further details are provided in the Report of the Board on Remuneration of Directors on page 31.

Notes to the Financial Statements

35 Emoluments of Directors (continued)

The Non-Executive Directors were not eligible for performance related bonuses or share options and no pension contributions were made on their behalf.

Directors' Pension Entitlement (per annum)	Tom McKillop \$'000	Håkan Mogren \$'000	Ake Stavling \$'000	Claes Wilhelmsson \$'000
Defined Benefit Arrangements				
1. Accrued pension at 1 January 2001	662	790	299	448
2. Increase in accrued pension during year as a result of inflation	11	19	6	9
3. Adjustment to accrued pension as a result of salary increase relative to inflation	30	–	9	76
4. Increase in accrued pension as a result of additional service	26	–	11	–
5. Accrued pension at 31 December 2001	729	809 [†]	325 [†]	533 [†]
6. Employee contributions during year	12	–	–	–
7. Age at 31 December 2001	58 ^{9/12}	57 ^{3/12}	56 ^{11/12}	62 ^{9/12}
8. Pensionable service (years)	32 ^{3/12}	29 ^{3/12}	28 ^{11/12}	34 ^{9/12}

[†] Accrued pension payable between the age of 60 and 65. Once 65 the pension payable is reduced by ²/₁₀ths (or 28.6%) from the figures shown.

Jonathan Symonds
\$'000

Money Purchase Arrangements

Company contributions paid	172
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Former Zeneca Directors' pension entitlement

Tom McKillop is a member of the main UK defined benefit pension plan. The normal pension age under this plan is 62. However, a member's accrued pension is available from age 60 without any actuarial reduction. In addition the accrued pension is available, unreduced, from age 57 if the Company consents to a request for early retirement, and from age 50 if the retirement is at the Company's request.

On death in retirement, the accrued pension shown is guaranteed payable for the first five years of retirement and then reduces to two-thirds of this amount should there be a surviving spouse or other dependant. Any member may choose higher or lower levels of survivor's pensions at retirement, subject to Inland Revenue limits, in return for an adjustment to their own pension of equivalent actuarial value. Pensions are also payable to dependent children. In the event of a senior employee becoming incapacitated from performing his work then a pension is payable immediately as if such person had reached normal retirement age, based on current pensionable salary. In the event of death prior to retirement, dependants are entitled to a pension of two-thirds of the pension that would have been earned had such person remained in service to age 62 plus a capital sum of four times pensionable pay. Pensions in payment are increased annually in line with inflation, as measured by the Retail Price Index, up to a maximum of 5%.

Jonathan Symonds has an underpinned money purchase arrangement whose objective is to provide benefits at least equivalent to those which would have been achieved under the UK defined benefit plan.

Former Astra Directors' pension entitlement

Directors who were formerly Astra employees (Håkan Mogren, Åke Stavling and Claes Wilhelmsson) are entitled to a total pension of 70% of pensionable salary from age 60 to 65 and of 50% of such earnings from age 65. As a result the accrued pensions shown above are payable only from age 60 to age 65 after which they will be reduced by ²/₇ths of the amounts shown. Paid in pension capital may also be used in the event of retirement or termination before the age of 60. In the event of long term illness then a pension is payable immediately as if such person had reached the normal retirement age, of 70% of current pensionable salary. On death in retirement the accrued pension shown is payable to a surviving spouse or other dependant. In the event of death prior to retirement the accrued pension shown is payable to a surviving spouse or other dependant plus a capital sum of three times pensionable salary less \$100,000 if married or two times pensionable salary less \$100,000 if not.

36 Assets pledged, commitments and contingent liabilities

	2001 \$m	2000 \$m	1999 \$m
Assets pledged			
Mortgages and other assets pledged	118	51	47
Commitments			
Contracts placed for future capital expenditure not provided for in these accounts	515	604	383

Included in the above total are contracts related to certain product purchase and licence agreements with deferred consideration obligations, the amounts of which are variable depending upon particular 'milestone' achievements. Sales of the products to which these 'milestones' relate could give rise to additional payments, contingent upon the sales levels achieved. 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.

Commitments

AstraZeneca is required to pay approximately \$800m over at least a five-year period which commenced in 1999, under the terms of an agreement with Schering-Plough. With effect from 1 January 1999, in connection with this agreement, AstraZeneca obtained a stand-by letter of credit in the amount of \$608m. This letter of credit is collateralised by high-grade government securities which are not available to AstraZeneca to the extent of the outstanding balance of the letter of credit. The amount outstanding under the letter of credit is automatically reduced with each payment made by AstraZeneca to Schering-Plough. Under the terms of this agreement AstraZeneca reacquired the rights to market omeprazole under the *Losec* trade mark and felodipine under the *Prevox* and *Perfudal* trade marks in Italy and Spain. The total discounted liability and associated asset were recognised in 1999. Payments under this agreement for 2001 totalled approximately \$127m.

Pursuant to the restructuring of the joint venture with Merck & Co., Inc., AstraZeneca is obliged to make certain contingent payments to Merck based on sales of certain current and pipeline AstraZeneca products until at least 2008. AstraZeneca is also required to make certain payments to Merck in the form of partnership distributions, including a priority return and certain variable returns which are based upon sales of certain other AstraZeneca products in the US.

As part of the Astra Merck restructuring and as a result of the merger of Astra and Zeneca, an option (the 'First Option') exists under which Merck has the right to require that AstraZeneca purchases Merck's rights to all products other than omeprazole and esomeprazole in 2008. If Merck does not exercise the First Option in 2008, then AstraZeneca may exercise the First Option in 2010. Even if the First Option is not exercised by Merck, AstraZeneca is obliged in 2008 to purchase Merck's rights to contingent payments in respect of the sales of certain AstraZeneca products in the US. The purchase price will be based on a multiple of an average of the three preceding years' pre-tax returns paid by AstraZeneca to Merck for such sales. In the event that the First Option is exercised, AstraZeneca will pay compensation to Merck based on a multiple of an average of the three preceding years' pre-tax payments from AstraZeneca to Merck for all products except for omeprazole and esomeprazole. If the First Option is exercised, the payments in 2008 (or 2010 if applicable) are subject to a minimum of at least \$4.7bn.

In addition, AstraZeneca has an option to purchase Merck's rights to payments in respect of omeprazole and esomeprazole two years after the First Option is exercised or later when the combined sales of omeprazole and esomeprazole are below a certain level (the 'Second Option'). The exercise price for the Second Option will be the fair value of such rights as determined at the time of such exercise.

If neither the First Option nor the Second Option is exercised by AstraZeneca or Merck, the licence agreement will continue indefinitely with respect to the compounds still subject to the licence agreement at the time of the merger, the value of which licence rights will diminish over time.

Environmental costs and liabilities

The Group's expenditure on environmental protection, including both capital and revenue items, relates to costs which are necessary for meeting current good practice standards and regulatory requirements for processes and products.

They are an integral part of normal ongoing expenditure for maintaining the Group's manufacturing capacity and product ranges and are not separated from overall operating and development costs. There are no known changes in environmental, regulatory or other requirements resulting in material changes to the levels of expenditure for 1999, 2000 or 2001.

In addition to expenditure for meeting current and foreseen environmental protection requirements, the Group incurs substantial costs in investigating and cleaning up land and ground-water contamination. In particular, AstraZeneca has environmental liabilities at some currently or formerly owned, leased and third party sites in the US. AstraZeneca, or its indemnitees, have been named under US legislation (the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended) as potentially responsible parties (PRP) in respect of 28 sites (although AstraZeneca expects to be indemnified against liabilities associated with nine of these sites by the seller or owner of the businesses associated with such sites) and, where appropriate, actively participates in or monitors the clean-up activities at sites in respect of which it is a PRP. Stauffer Management Company, a subsidiary of AstraZeneca established in 1987 to own and manage certain assets of Stauffer Chemical Company which was acquired that year, has identified 29 sites (including 15 for which an AstraZeneca indemnitee has been named a PRP) for which it may have responsibility that will, in aggregate, require significant expenditure on clean-up and monitoring.

Notes to the Financial Statements

36 Assets pledged, commitments and contingent liabilities (continued)

Liabilities are generally more likely to crystallise where a contaminated site is to be sold, its use changed or where a regulatory authority imposes a particular remedial measure. Costs of these liabilities may be offset by amounts recovered from third parties, such as previous owners of the sites in question or through insurance.

The future level of investigation and clean up costs will depend on a number of factors, including the nature and extent of any contamination that may ultimately be found to exist, the need for and type of any remedial work to be undertaken and the standards required by applicable current and future environmental laws and regulations and the number and financial viability of other PRPs. The relative importance of these factors varies significantly from site to site. Many sites are at different stages in the regulatory process or at different stages in the process of evaluating environmental damage or alternative remediation methods. It is therefore difficult to form meaningful ranges of estimates for such costs.

AstraZeneca had provisions at 31 December 2001 in respect of such costs in accordance with the accounting policies on page 51. Although there can be no assurance, management believes that, taking account of these provisions, the costs of addressing currently identified environmental obligations, as AstraZeneca currently views those obligations, is unlikely to impair materially AstraZeneca's financial position. Such contingent costs, to the extent that they exceed applicable provisions, could have a material adverse effect on AstraZeneca's results of operations for the relevant period.

Legal proceedings

Losec/Prilosec (omeprazole)

In June 1997, the German Federal Patent Court declared invalid a previously granted supplementary protection certificate which extended protection for omeprazole, the active ingredient contained in *Losec*, from 1999 to 2003. The decision was appealed and on 1 February 2000, at AstraZeneca's request, the German Supreme Court decided to refer the case to the European Court of Justice for a preliminary ruling. The court heard the case on 8 November 2001 and its decision is pending. The case does not involve any financial claims.

In March 2000, the German Federal Patent Court declared that AstraZeneca's formulation patent for *Losec* was invalid. The decision has been appealed to the German Supreme Court. As a consequence, all pending infringement actions in Germany have been stayed awaiting the outcome of the appeal. There is one interlocutory injunction in force against ratiopharm GmbH based on the formulation patent still in force. If the final decision on the validity of the formulation patent goes against AstraZeneca, ratiopharm may claim damages for lost sales due to the interlocutory injunction.

In 1998, Astra filed suits in the US against Andrx Pharmaceuticals, Inc. and Genpharm, Inc. This followed the filing of abbreviated new drug applications by Andrx and Genpharm with the US Food and Drug Administration concerning the two companies' intention to market generic omeprazole products in the US. The suits are continuing. During 1999, Astra also filed suits against Kremers Urban Development Company and Schwarz Pharma, Inc., and against Cheminor Drugs Ltd., Reddy-Cheminor Inc. and Schein Pharmaceuticals, Inc. During 2000, AstraZeneca filed further suits against Lek Pharmaceutical and Chemical Company d.d, Impax Laboratories Inc., Eon Labs Manufacturing Inc. and Mylan Pharmaceuticals Inc. During 2001, AstraZeneca filed further suits against Torpharm, Inc. and Zenith Goldline Pharmaceuticals, Inc. The basis for the proceedings is that the actions of all the companies infringe several patents relating to *Prilosec*. The cases are proceeding under the US Hatch Waxman legislation. AstraZeneca filed additional patent infringement suits during 2001 against Andrx and Genpharm in respect of one other omeprazole patent outside the Hatch Waxman legislation. The trial against Andrx, Genpharm, Kremers Urban Development Company and Cheminor started in December 2001.

In April 2001, Andrx filed a case against AstraZeneca, Merck & Co., Inc. and the FDA alleging that the listing of certain patents in the FDA's Orange Book was improper and constituted violations of certain provisions of the Sherman Act, the US federal anti-trust legislation, and a state statute analogous to the federal anti-trust laws. Andrx seeks injunctive relief compelling the parties to delist *Prilosec*-related patents it claims were improperly listed in the Orange Book and prohibiting the defendants from using patents to delay the effective date of the FDA's approval of Andrx's ANDA for omeprazole. AstraZeneca and Merck have filed motions to dismiss the case, which are pending.

AstraZeneca and Merck & Co., Inc. have been named as defendants in three class actions: two pending in the US District Court for the Southern District of New York and one pending in the US District Court for the District of New Jersey. The plaintiffs are consumers and third party payers who have alleged that they and others who are similarly situated have been forced to pay higher prices for omeprazole as a result of agreements that AstraZeneca and Merck entered into that resulted in 'unreasonable restraints of trade and competition'. Furthermore, the plaintiffs allege that AstraZeneca and Merck engaged in conduct designed to extend their monopoly power 'beyond the lawful boundaries of their patents'. The plaintiffs are seeking declarative, equitable and injunctive relief enjoining AstraZeneca and Merck from continuing their alleged illegal activities, costs of suit, reasonable attorney's fees and expenses and any other relief determined by the court.

In October 2000, the Federal Court of Australia (Full Court) handed down a patent ruling pertaining to omeprazole in connection with a dispute between AstraZeneca and the generic company, Alphapharm Pty Ltd. The court declared that AstraZeneca's formulation patent was invalid. In November 2001, AstraZeneca applied for special leave to appeal the decision to the High Court of Australia and this application was granted in December 2001.

36 Assets pledged, commitments and contingent liabilities (continued)

During 2000, AstraZeneca was granted interlocutory injunctions based on certain of AstraZeneca's omeprazole patents and supplementary protection certificates against the generic company, Scandinavian Pharmaceuticals-Generics AB (Scand Pharm), in Sweden, Denmark and Norway. In October 2000, the District Court of Stockholm ruled that Scand Pharm had infringed one of AstraZeneca's SPCs for omeprazole. Scand Pharm has appealed this decision. In October 2001, Oslo City Court in Norway found that Scand Pharm had infringed AstraZeneca's formulation patent for omeprazole. At the same time, the court declared AstraZeneca's formulation patent valid. As a result of the Norwegian case, Scand Pharm cannot sell its omeprazole product in Norway, nor can it do so in Sweden or Denmark pending the outcome of the main actions in the cases in these countries. If the final decisions in these cases are against AstraZeneca, Scand Pharm may claim damages for lost sales due to the interlocutory injunctions.

Other court cases relating to omeprazole patents are pending worldwide. However, the financial impact if AstraZeneca loses is not considered to be material.

In February 2000, the European Commission commenced an investigation relating to certain omeprazole intellectual property rights, and associated regulatory and patent infringement litigation. The investigation is pursuant to Article 82 of the EC Treaty, which prohibits an abuse of a dominant position. The investigation was precipitated by a complaint by a party to a number of patent and other proceedings involving AstraZeneca and relates to a limited number of European countries. AstraZeneca has, in accordance with its corporate policy, co-operated with the Commission. AstraZeneca remains of the view that the complaint is unfounded and that it has complied with all relevant competition laws. In particular, it considers that the matters raised by the complaint are more properly dealt with by the courts in the context of the litigation in which the complainant is involved. AstraZeneca will continue to co-operate with the Commission should it decide to take the matter further.

Plendil (felodipine)

In August 2000, AstraZeneca LP received a letter from Mutual Pharmaceutical Co., Inc. informing AstraZeneca of Mutual's intention to market a generic version of AstraZeneca's felodipine extended release tablets (*Plendil*) prior to the expiration of AstraZeneca's patent covering the extended release formulation. AstraZeneca filed a patent infringement action against Mutual in the US District Court for the Eastern District of Pennsylvania. Mutual responded and filed counterclaims alleging non-infringement and invalidity.

In May 2001, AstraZeneca Pharmaceuticals LP received a similar letter from Zenith Goldline Pharmaceuticals, Inc. and in July 2001, AstraZeneca filed a patent infringement action against Zenith in the US District Court for the District of New Jersey. Zenith responded and filed counterclaims alleging non-infringement.

Nolvadex (tamoxifen)

AstraZeneca is a co-defendant with Barr Laboratories in numerous purported class actions filed in federal and state courts throughout the US. The federal cases have been consolidated in a federal multi-district litigation proceeding pending in the US District Court for the Eastern District of New York. Some of the cases were filed by plaintiffs representing a putative class of consumers who purchased tamoxifen. The other cases were filed on behalf of a putative class of 'third party payers' (including HMOs, insurers and other managed care providers and health plans) that have reimbursed or otherwise paid for prescriptions of tamoxifen. The plaintiffs allege that they paid 'supra-competitive and monopolistic prices' for tamoxifen as a result of the settlement of patent litigation between Zeneca and Barr in 1993. The plaintiffs seek injunctive relief, treble damages under the anti-trust laws of certain states, disgorgement and restitution.

Retail pharmacies'/drug purchasers' actions

Since October 1993, several thousand retail pharmacies and certain retail drug purchasers have commenced purported class actions and individual actions in various federal and state courts throughout the US alleging that, with respect to brand name prescription drugs, manufacturers and wholesalers engaged in discriminatory pricing practices, discriminatory discounting and rebate practices, and/or conspired with one another to fix prices and artificially maintain high prices to the plaintiffs in restraint of trade and commerce. More than 20 brand name prescription drug manufacturers and eight wholesalers have been named defendants in some or all of these suits.

AstraZeneca entered into a settlement agreement with the retail class plaintiffs whose anti-trust claims were consolidated in a federal multi-district litigation proceeding pending in the Northern District of Illinois. AstraZeneca also reached settlements with numerous independent and chain pharmacies that opted out of the federal class action, although there are still actions brought by certain chain and independent pharmacies pending in federal court. AstraZeneca has settled or been dismissed from all of the state cases except for the retail cases pending in state courts in Alabama and California. AstraZeneca has consistently denied liability and continues to believe it has meritorious defences to all of these claims. However, it believes that entering into these settlements is the prudent course of action given the inherent risks and costs of litigation and to avoid further business disruption.

Consumer group action

In January 2002, AstraZeneca was named as a defendant along with 24 other pharmaceutical manufacturers in a class action suit, in Massachusetts, brought on behalf of a putative class of plaintiffs alleged to have overpaid for certain prescription drugs covered under Medicare. The suit seeks to recover unspecified damages. AstraZeneca was also named as the only defendant in a punitive class action alleging similar claims and damages but filed in Delaware.

Notes to the Financial Statements

36 Assets pledged, commitments and contingent liabilities (continued)

Advanta BV

Advanta BV is a Dutch joint venture active in the seeds business. AstraZeneca Holdings BV owns 50% of the shares and the other 50% is owned by Koninklijke VanderHave Groep BV (VanderHave). In December 2000, VanderHave brought preliminary relief proceedings against AstraZeneca Holdings BV alleging breach of the shareholders' agreement and requesting the transfer of AstraZeneca's shares in Advanta to VanderHave. The District Court of Rotterdam dismissed VanderHave's case in January 2001 and VanderHave lodged an appeal. Prior to the scheduled appellate hearing in January 2002, the parties negotiated a settlement of the dispute including a dismissal of the appeal.

General

AstraZeneca is also involved in various other legal proceedings considered typical to its businesses, including some remaining US retail pharmacy anti-trust class and individual actions outside the scope of the settlements described above and litigation relating to employment, product liability, commercial disputes, infringement of intellectual property rights and the validity of certain patents. Additionally, as is true for most, if not all, pharmaceutical companies operating in the US, AstraZeneca is currently involved in US federal and state government, criminal and civil investigations into drug marketing and pricing practices. AstraZeneca is co-operating with the government in respect of all such investigations. Although there can be no assurance regarding the outcome of any of the legal proceedings or investigations referred to in this Note 36 to the Financial Statements, AstraZeneca does not expect them to have a materially adverse effect on AstraZeneca's financial position or profitability.

37 Leases

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

	2001 \$m	2000 \$m	1999 \$m
Hire of plant and machinery	25	15	33
Other	76	74	50
	101	89	83

Commitments under operating leases to pay rentals during the year following the year of these Financial Statements analysed according to the period in which each lease expires were as follows:

	Land and buildings		Other assets	
	2001 \$m	2000 \$m	2001 \$m	2000 \$m
Expiring within one year	5	5	12	7
Expiring in years two to five	37	26	13	14
Expiring thereafter	25	8	2	7
	67	39	27	28

The future minimum lease payments under operating leases that have initial or remaining terms in excess of one year at 31 December 2001 were as follows:

	Operating leases	
	2001 \$m	2000 \$m
Obligations under leases comprise		
Rentals due within one year	94	67
Rentals due after more than one year		
After five years from balance sheet date	97	110
From four to five years	20	20
From three to four years	21	28
From two to three years	25	43
From one to two years	35	57
	198	258
	292	325

The Group had no commitments (2000 \$nil) under finance leases at the balance sheet date which were due to commence thereafter.

38 Statutory and other information

	2001 \$m	2000 \$m	1999 \$m
Audit fees			
KPMG Audit Plc	2.5	3.2	3.7
Deloitte & Touche	-	-	2.1
Others	0.1	-	0.3
	2.6	3.2	6.1
Fees for other services			
KPMG Audit Plc and associates – UK	3.2	8.9	19.6
– Worldwide	2.0	5.0	4.9
Deloitte & Touche – UK	-	-	1.1
– Worldwide	-	-	3.5
	5.2	13.9	29.1

In 2001, the non-audit fees paid to KPMG were incurred in tax (\$2.1m), fees relating to transactions (\$0.3m) and consulting and other services (\$2.8m).

In addition to the above, in 2000 KPMG Audit Plc and its associates charged fees for other services of \$8.0m that were borne by Syngenta AG in relation to its demerger from AstraZeneca.

The charge for the statutory audit of the Company, AstraZeneca PLC, was \$1,600 (2000 \$1,600, 1999 \$1,600). KPMG Audit Plc were sole auditors to AstraZeneca in 2001 and 2000. KPMG Audit Plc and Deloitte & Touche were joint auditors in 1999. Prior to the merger, Deloitte & Touche were sole auditors to Astra and KPMG Audit Plc were sole auditors to Zeneca.

The bulk of fees for other services charged by KPMG Audit Plc and its associates (aside from the Zeneca Agrochemicals demerger and associated restructuring work) were incurred in the early months of 2000, completing 1999 integration projects.

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.

Subsequent events

No significant change has occurred since the date of the annual Financial Statements.

Notes to the Financial Statements

39 Company information

Company Balance Sheet

At 31 December	Notes	2001 \$m	2000 \$m
Fixed assets			
Fixed asset investments	39	6,736	6,736
		6,736	6,736
Current assets			
Debtors – amounts owed by subsidiaries		27,998	27,944
Total assets		34,734	34,680
Creditors due within one year			
Non-trade creditors	39	(835)	(889)
		(835)	(889)
Net current assets		27,163	27,055
Total assets less current liabilities		33,899	33,791
Creditors due after more than one year			
Loans – owed to subsidiaries	39	(590)	(590)
Net assets		33,309	33,201
Capital and reserves			
Called-up share capital	40	436	442
Share premium account	39	334	235
Capital redemption reserve	39	9	3
Other reserves	39	2,239	2,239
Profit and loss account	39	30,291	30,282
Shareholders' funds – equity interests		33,309	33,201

The financial statements on pages 46 to 110 were approved by the Board of Directors on 31 January 2002 and were signed on its behalf by:

Tom McKillop
Director

Jonathan Symonds
Director

39 Company information (continued)

Deferred taxation

The parent company had no deferred tax assets or liabilities (actual or potential) at 31 December 2001.

Fixed asset investments	Investments in subsidiaries		
	Shares \$m	Loans \$m	Total \$m
Cost at beginning of year	6,145	591	6,736
Additions	–	–	–
Disposals	–	–	–
Net book value at 31 December 2001	6,145	591	6,736
Net book value at 31 December 2000	6,145	591	6,736

Non-trade creditors

	2001 \$m	2000 \$m
Amounts due within one year		
Short term borrowings (unsecured)	3	–
Other creditors	4	–
Amounts owed to subsidiaries	8	59
Dividends to shareholders	820	830
	835	889

Loans – owed to subsidiaries

	Repayment Dates	2001 \$m	2000 \$m
Loans (unsecured)			
US dollars			
6.58% loan	2003	295	295
7.2% loan	2023	295	295
Total loans		590	590

Loans or instalments thereof are repayable

After five years from balance sheet date	295	295
From two to five years	–	295
From one to two years	295	–
Total unsecured	590	590
Total due within one year	–	–
Total loans	590	590

Notes to the Financial Statements

39 Company information (continued)

Reserves	Share premium account \$m	Capital redemption reserve \$m	Other reserves \$m	Profit and loss account \$m	2001 Total \$m	2000 Total \$m
At beginning of year	235	3	2,239	30,282	32,759	35,813
Net gains for the year	-	-	-	2,314	2,314	617
Dividends						
Cash	-	-	-	(1,225)	(1,225)	(1,236)
Dividend in specie	-	-	-	-	-	(2,117)
Share repurchase	-	6	-	(1,080)	(1,074)	(351)
Share premiums	99	-	-	-	99	33
At end of year	334	9	2,239	30,291	32,873	32,759

As permitted by Section 230 of the Companies Act 1985, the Company has not presented its profit and loss account.

In the Company accounts the demerger of Zeneca Agrochemicals in 2000 was accounted for by revaluing the demerged legal entity, Syngenta AG (to which the Zeneca Agrochemicals business had been transferred), to the Global Offer Price per share times the number of Syngenta shares to be distributed to AstraZeneca shareholders (\$2,117m), and distributing those shares as a dividend in specie.

In 1999 the Company sold its investment in Astra AB to a subsidiary, resulting in a gain of \$32,839m which was taken to reserves. This gain, which represents an unrealised profit, will be realised as the underlying receivable is settled in cash. In the year ended 31 December 2000, an exchange loss of \$3,478m on the underlying receivable was taken to reserves. The receivable has been redenominated in US dollars and, accordingly, no corresponding exchange gains or losses have been recorded this year. The gain on the revaluation of the investment in Syngenta AG of \$2,116m was similarly taken to reserves via the statement of total recognised gains and losses. On distribution in specie of the investment in Syngenta AG that unrealised gain was treated as realised in determining the lawfulness of that distribution. The balance of the profit and loss account at 31 December 2001 includes \$29,440m which is not available for distribution (31 December 2000: \$29,440m). Included in other reserves is the special reserve of \$157m, arising on the redenomination of share capital. Of the remaining balance on other reserves, \$772m is distributable.

40 Called-up share capital of parent company

	Authorised 2001 \$m	Allotted, called-up and fully paid 2001 \$m	2000 \$m
Ordinary Shares (\$0.25 each)	436	436	442
Unissued Ordinary Shares (\$0.25 each)	164	-	-
Redeemable Preference Shares (£50,000)	-	-	-
	600	436	442

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 movements in share capital during the year can be summarised as follows:

	No. of shares (million)	\$m
At beginning of year	1,766	442
Issues of shares	2	-
Repurchase of shares	(23)	(6)
At 31 December 2001	1,745	436

Share buy-back

During the year the Company purchased, and subsequently cancelled, 23,455,000 Ordinary Shares at an average price of 3168 pence per share for a consideration, including expenses, of \$1,080m. The excess of the consideration over the nominal value has been charged against the profit and loss account reserve.

Share options

A total of 2,289,624 shares were issued during the year in respect of share options. Details of movements in the number of shares under option are shown in Note 33; details of options granted to Directors are shown in Note 34.

Principal Subsidiaries, Joint Ventures and Associates

At 31 December 2001	Country	Percentage of voting share capital held	Principal activity
UK			
AstraZeneca UK Limited	England	100#	Research, production, marketing
AstraZeneca Insurance Company Limited	England	100	Insurance and reinsurance underwriting
AstraZeneca Treasury Limited	England	100	Treasury
Continental Europe			
NV AstraZeneca SA	Belgium	100	Marketing
ASP SA	France	100	Production
AstraZeneca Pharma SA	France	100	Research, production, marketing
AstraZeneca GmbH	Germany	100	Development, production, marketing
AstraZeneca Holding GmbH	Germany	100	Production, marketing
AstraZeneca SpA	Italy	100	Production, marketing
AstraZeneca Farmaceutica Spain SA	Spain	100	Production, marketing
AstraZeneca AB	Sweden	100	Research and development, production, marketing
Astra Tech AB	Sweden	100	Research and development, production, marketing
AstraZeneca BV	The Netherlands	100	Marketing
The Americas			
AstraZeneca do Brasil Ltda.	Brazil	100	Production, marketing
AstraZeneca Canada Inc.	Canada	100	Research, production, marketing
IPR Pharmaceuticals Inc.	Puerto Rico	100	Development, production, marketing
AstraZeneca LP	US	99	Development, production, marketing
AstraZeneca Pharmaceuticals LP	US	100	Development, production, marketing
Salick Health Care, Inc.	US	100	Provision of disease-specific healthcare services
Zeneca Holdings Inc.	US	100	Production, marketing
Asia, Africa & Australasia			
AstraZeneca Pty Limited	Australia	100	Research, production, marketing
AstraZeneca Pharmaceutical Co., Limited	China	100	Production, marketing
AstraZeneca Hong Kong Limited	Hong Kong	100	Production
AstraZeneca KK	Japan	80	Production, marketing

shares held directly

The companies and other entities listed above are those whose results or financial position principally affected the figures shown in the Group's annual financial statements. A full list of subsidiaries, joint ventures and associates will be annexed to the Company's next annual return filed with the Registrar of Companies. The country of registration or incorporation is stated alongside each company. The accounting dates of principal subsidiaries and associates are 31 December, except for Salick Health Care, Inc. which is 30 November. AstraZeneca operates through 246 subsidiary companies worldwide. Products are manufactured in some 20 countries worldwide and are sold in over 100 countries.

Additional Information for US Investors

Differences between UK and US accounting principles

The accompanying consolidated financial statements included in this report are prepared in accordance with UK GAAP. Certain significant differences between UK GAAP and US GAAP which affect AstraZeneca's net income and shareholders' equity are set out below.

Purchase accounting adjustments

Under UK GAAP the merger of Astra and Zeneca was accounted for as a 'merger of equals' (pooling-of-interests). Under US GAAP the merger was accounted for as the acquisition of Astra by Zeneca using 'purchase accounting'. Under purchase accounting, the cost of the investment is calculated at the market value of the shares issued together with other incidental costs and the assets and liabilities of the acquired entity are recorded at fair value. As a result of the fair value exercise, increases in the values of Astra's tangible fixed assets and inventory were recognised and values attributed to their in-process research and development, existing products and assembled work force, together with appropriate deferred taxation effects. The difference between the cost of investment and the fair value of the assets and liabilities of Astra has been recorded as goodwill. The amount allocated to in-process research and development was, as required by US GAAP, expensed immediately in the first reporting period after the business combination. Fair value adjustments to the recorded amount of inventory have been expensed in the period the inventory was utilised and additional amortisation and depreciation have also been recorded in respect of the fair value adjustments to tangible and intangible assets and the resulting goodwill. Pre-acquisition results are excluded from US GAAP net income.

In the consolidated financial statements prepared under UK GAAP, goodwill arising on acquisitions made prior to 1 January 1998 accounted for under the purchase method has been eliminated against shareholders' equity, whilst under US GAAP this goodwill (after allocations to the fair value of tangible and intangible assets) is required to be capitalised and amortised. Under the requirements of UK Financial Reporting Standard 10 'Goodwill and Intangible Assets', goodwill on acquisitions made after 1 January 1998 is capitalised and amortised over its estimated useful life which is generally presumed not to exceed 20 years. UK GAAP requires that on subsequent disposal or termination of a previously acquired business, any goodwill previously taken directly to shareholders' equity is then charged in the income statement against the profit or loss on disposal or termination.

For the purpose of the adjustments to US GAAP included below, goodwill (including that capitalised under UK GAAP) is being amortised through the income statement over the estimated useful lives assigned to each individual acquisition. At 31 December 2001, these lives varied between 5 years and 40 years with a weighted average life of approximately 27 years. Identifiable intangible assets, which principally include patents, 'know-how' and product registrations, are amortised over their estimated useful lives which vary between 4 years and 40 years with a weighted average life of approximately 16 years.

At 31 December 2001 and 2000, shareholders' equity includes capitalised goodwill of \$12,169m and \$13,500m respectively (net of amortisation and impairment of \$2,180m and \$1,503m) and capitalised identifiable intangible assets of \$9,789m and \$11,611m respectively (net of amortisation and impairment of \$3,475m and \$2,402m). The carrying value of goodwill is reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Provision is made where there is a permanent impairment to the carrying value of capitalised goodwill and intangible assets. Goodwill on businesses disposed of is charged to the gain or loss on disposal.

On disposal of a business, the gain or loss under US GAAP may differ from that under UK GAAP due principally to goodwill capitalised and amortised, together with the appropriate share of other differences between UK and US accounting principles recognised previously.

Capitalisation of interest

AstraZeneca does not capitalise interest in its financial statements. US GAAP requires interest incurred as part of the cost of constructing fixed assets to be capitalised and amortised over the life of the asset.

Dividends

Under UK GAAP Ordinary Share dividends proposed are provided for in the year in respect of which they are recommended by the Board of Directors for approval by the shareholders. Under US GAAP such dividends are not provided for until declared by the Board.

Deferred taxation

Deferred taxation is provided on a full liability basis under US GAAP, which permits deferred tax assets to be recognised if their realisation is considered to be more likely than not; under current UK GAAP, provision is made for deferred taxation only if there is reasonable evidence that such deferred taxation will be payable in the foreseeable future.

Pension and post-retirement benefits

There are three main differences between current UK GAAP and US GAAP in accounting for pension costs:

- (i) US GAAP requires measurements of plan assets and obligations to be made as at the date of the financial statements or a date not more than three months prior to that date. Under UK GAAP, calculations may be based on the results of the latest actuarial valuation;

Additional Information for US Investors

Differences between UK and US accounting principles (continued)

- (ii) US GAAP mandates a particular actuarial method – the projected unit credit method – and requires that each significant assumption necessary to determine annual pension cost reflects best estimates solely with regard to that individual assumption. UK GAAP does not mandate a particular method, but requires that the method and assumptions taken as a whole should be compatible and lead to the actuary's best estimate of the cost of providing the benefits promised; and
- (iii) under US GAAP, a negative pension cost may arise where a significant unrecognised net asset or gain exists at the time of implementation. This is required to be amortised on a straight-line basis over the average remaining service period of employees. Under UK GAAP, AstraZeneca's policy is not to recognise pension credits in its financial statements unless a refund of, or reduction in, contributions is likely.

Restructuring costs

Under UK GAAP, provisions are made for restructuring costs once a detailed formal plan is in place and valid expectations have been raised in those affected that the restructuring will be carried out. US GAAP requires a number of specific criteria to be met before such costs can be recognised as an expense. Among these are the requirements that the costs incurred are incremental to other costs incurred by the company, or represent amounts to be incurred under contractual obligations which are not associated with or do not benefit activities that will be continued. Also, all significant actions arising from a restructuring and their completion dates must be identified by the balance sheet date. To the extent that restructuring costs are related to the activities of the acquired company, US GAAP allows them to be recognised as a liability upon acquisition.

Software costs

Under UK GAAP, AstraZeneca expenses all software costs. Under US GAAP, with effect from 1 January 1999, certain of these costs are required to be capitalised and amortised over three years.

Foreign exchange

Under UK GAAP, unrealised gains and losses on foreign currency transactions to hedge anticipated, but not firmly committed, foreign currency transactions may be deferred and accounted for at the same time as the anticipated transactions. Under US GAAP such deferral is not permitted except in certain defined circumstances.

Derivative instruments and hedging activities

Under US GAAP, all derivative instruments should be recognised as assets or liabilities in the balance sheet at fair value. Gains and losses are recognised in net income unless they are regarded as hedges. Under UK GAAP, these instruments are measured at cost and gains or losses deferred until the underlying transactions occur.

Current assets and liabilities

Current assets under UK GAAP include amounts which fall due after more than one year. Under US GAAP such assets would be reclassified as non-current assets. Borrowings under UK GAAP are classified according to the maturity of the financial instrument, while under US GAAP, certain borrowings would be classified according to the maturity of the available back-up facility. Provisions for liabilities and charges under UK GAAP include amounts due within one year which would be reclassified to current liabilities under US GAAP. In addition, provisions would be shown as part of amounts payable and accrued liabilities due after one year.

Statement of cash flows: Basis of preparation

AstraZeneca's Statement of Group Cash Flow is prepared in accordance with United Kingdom Financial Reporting Standard 1 (Revised 1996) ('FRS 1'), whose objective and principles are similar to those set out in SFAS No. 95, 'Statement of Cash Flows'. The principal differences between the standards relate to classification and also that the UK GAAP cash flow statement combines the cash flow statements of Astra and Zeneca for all periods whilst the US GAAP cash flow statements includes the cash flows of Astra only from the date of acquisition, 6 April 1999. Under FRS 1, the Company presents its cash flows for (a) operating activities; (b) dividends received from joint ventures and associates; (c) returns on investments and servicing of finance; (d) tax paid; (e) capital expenditure and financial investment; (f) acquisitions and disposals; (g) dividends paid to shareholders; (h) management of liquid resources; and (i) financing. SFAS No. 95 requires only three categories of cash flow activity being (a) operating; (b) investing; and (c) financing.

Cash flows from taxation, returns on investments and servicing of finance and dividends received from joint ventures and associates under FRS 1 would be included as operating activities under SFAS No. 95; capital expenditure and financial investment and acquisitions and disposals would be included as investing activities; and distributions would be included as a financing activity under SFAS No. 95. Under FRS 1 cash comprises cash in hand and deposits repayable on demand, less overdrafts repayable on demand; and liquid resources comprise current asset investments held as readily disposable stores of value. Under SFAS No. 95 cash equivalents, comprising short term highly liquid investments, generally with original maturities of three months or less, are grouped together with cash; short term borrowings repayable on demand would not be included within cash and cash equivalents and movements on those borrowings would be included in financing activities.

New accounting standards adopted

AstraZeneca has adopted Statement of Financial Accounting Standards (SFAS) No 133, 'Accounting for Derivative Instruments and Hedging Activities', as amended by SFAS No. 137, 'Accounting for Derivative Instruments and Hedging Activities – Deferral of the Effective Date of FASB Statement No. 133' and SFAS No. 138, 'Accounting for Certain Derivative Instruments and Certain Hedging Activities'. The effect of adoption is an after tax credit of \$35m.

Differences between UK and US accounting principles (continued)

New accounting standards not yet adopted

Statement of Financial Accounting Standards (SFAS) No. 141 'Business Combinations' and SFAS No. 142 'Goodwill and Other Intangible Assets' were issued in July 2001 and are effective for accounting periods commencing on or after 15 December 2001. Under SFAS No. 141, all business combinations initiated after 30 June 2001 must be accounted for using the purchase method. The pooling of interest method is no longer permitted. Intangible assets arising on acquisitions are required to be amortised to residual values over their estimated useful lives unless they are regarded as having indefinite useful lives, in which case they are tested annually for impairment. Goodwill, arising on a combination of business, is tested for impairment annually in lieu of amortisation. SFAS No. 142 requires that goodwill and intangible assets acquired prior to 1 July 2001 should continue to be amortised and tested for impairment until the adoption of the standard. Upon adoption of SFAS No. 142 an impairment test must be carried out on all intangible assets with indefinite useful lives and goodwill. Any impairment loss identified on the date of adoption of SFAS No. 142 should be accounted for as a cumulative effect of a change in accounting principle.

Adoption of these new accounting standards will result in an estimated increase in net income of \$728m (including amortisation charged under UK GAAP of \$45m). Initial adoption of SFAS No. 142 does not result in an impairment charge.

SFAS No. 143 'Accounting for Asset Retirement Obligation' addresses the accounting and reporting for obligations associated with the retirement of long-lived assets and the associated asset retirement costs. It is effective for accounting periods beginning on or after 15 June 2002. AstraZeneca does not expect adoption of SFAS No. 143 to be material to the Group.

SFAS No. 144 'Accounting for the Impairment or Disposal of Long-Lived Assets' addresses financial accounting and reporting for the impairment or disposal of long-lived assets and supersedes SFAS No. 121, 'Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed of' and the accounting and reporting provisions of APB Opinion No. 30, 'Reporting the Results of Operations – Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions', for the disposal of a segment of a business. It is effective for accounting periods beginning on or after 15 December 2001. AstraZeneca does not expect adoption of SFAS No. 144 to be material to the Group.

Additional Information for US Investors

Differences between UK and US accounting principles (continued)

Introduction

As a result of the significant difference between the UK GAAP and US GAAP treatment of the combination of Astra and Zeneca in the year of acquisition, and in the results of preceding periods, condensed statements of operations and cash flow under US GAAP have been prepared for the benefit of US investors. In particular, under US GAAP, results and cash flow of Astra are excluded from the consolidated results and cash flows respectively for all periods prior to 6 April 1999.

The following is a summary of the material adjustments to net income and shareholders' equity which would have been required if US GAAP had been applied instead of UK GAAP.

Net income	2001 \$m	2000 \$m	1999 \$m
Net income, as shown in the consolidated statements of income before exceptional items	3,105	3,119	2,730
Exceptional items after tax	(138)	(581)	(1,587)
Net income for the period under UK GAAP	2,967	2,538	1,143
Pre-acquisition results of Astra	-	-	(413)
	2,967	2,538	730
Adjustments to conform to US GAAP			
Purchase accounting adjustments (including goodwill and intangibles)			
Deemed acquisition of Astra			
In-process research and development	-	-	(3,315)
Inventory step-up	-	-	(826)
Amortisation and other acquisition adjustments	(1,514)	(1,756)	(759)
Others	-	(20)	(61)
Divestment of Specialties business	-	-	284
Impairment of Salick Health Care goodwill	-	-	(308)
Capitalisation, less disposals and amortisation of interest	57	45	5
Deferred taxation			
On fair values of Astra	249	284	547
Others	(259)	(146)	117
Pension expense	(33)	(50)	(103)
Post-retirement benefits/plan amendment	4	4	4
Software costs	(10)	98	29
Restructuring costs	(22)	(97)	119
Unrealised losses on foreign exchange and others	(74)	(35)	(2)
Net income/(loss) before cumulative effect of change in accounting policy	1,365	865	(3,539)
Cumulative effect of change in accounting policy, net of tax, on adoption of SFAS No 133	32	-	-
Net income/(loss) in accordance with US GAAP	1,397	865	(3,539)

Differences between UK and US accounting principles (continued)

US GAAP condensed consolidated statement of operations

For the years ended 31 December	2001 \$m	2000 \$m	1999 \$m
Sales	16,480	15,804	12,789
Cost of sales	(4,456)	(4,181)	(4,278)
Distribution costs	(122)	(210)	(200)
Research and development	(2,687)	(2,620)	(2,178)
Selling, general and administrative expenses	(5,219)	(4,861)	(4,323)
Acquisition-related costs	(224)	(419)	(4,562)
Amortisation of intangibles and goodwill	(1,769)	(2,043)	(1,601)
Other income	283	223	115
Operating income/(loss)	2,286	1,693	(4,238)
Net interest income/(expense)	188	183	(23)
Income/(loss) from continuing operations before taxation	2,474	1,876	(4,261)
Taxes on income from continuing operations	(1,109)	(969)	190
Net income/(loss) from continuing operations	1,365	907	(4,071)
Discontinued operations			
Net (loss)/income from discontinued operations	-	(42)	108
Gain on disposal of Specialties business, net of income taxes	-	-	424
Net income/(loss) before cumulative effect of change in accounting policy	1,365	865	(3,539)
Cumulative effect of change in accounting policy on adoption of SFAS No 133	32	-	-
Net income/(loss) for the year	1,397	865	(3,539)
Weighted average number of \$0.25 Ordinary Shares in issue (millions of shares)	1,758	1,768	1,569
Dilutive impact of share options outstanding (millions of shares)	3	2	3
Diluted weighted average number of \$0.25 Ordinary Shares in accordance with US GAAP (millions of shares)	1,761	1,770	1,572
Net income/(loss) per \$0.25 Ordinary Share and ADS before change in accounting policy in accordance with US GAAP – basic and diluted (\$)	0.77	0.49	(2.26)
Net income/(loss) per \$0.25 Ordinary Share and ADS after change in accounting policy in accordance with US GAAP – basic and diluted (\$)	0.79	0.49	(2.26)
	2001	2000	1999
Net income/(loss) from continuing operations per \$0.25 Ordinary Share and ADS in accordance with US GAAP – basic and diluted (\$)	0.79	0.51	(2.60)
Gain on disposal of Specialties business, net of income taxes – basic and diluted (\$)	-	-	0.27
Net (loss)/income from discontinued operations per \$0.25 Ordinary Share and ADS in accordance with US GAAP – basic and diluted (\$)	-	(0.02)	0.07

The dividend in specie in 2000 in respect of the demerger of Zeneca Agrochemicals under US GAAP amounted to \$836m, after realised exchange gains on the translation of foreign currency financial statements of \$297m.

Additional Information for US Investors

Differences between UK and US accounting principles (continued)

US GAAP statement of comprehensive income

For the years ended 31 December	2001 \$m	2000 \$m	1999 \$m
Net income/(loss) for the year	1,397	865	(3,539)
Exchange gains/(losses) net of tax	(1,473)	(2,184)	(437)
Exchange realised on demerger of Zeneca Agrochemicals	-	(297)	-
Other movements	-	(2)	64
Total Comprehensive Income	(76)	(1,618)	(3,912)

The cumulative exchange gains and losses (net of tax) on the translation of foreign currency financial statements under US GAAP are set out in the following note:

For the years ended 31 December	2001 \$m	2000 \$m	1999 \$m
Balance at 1 January	(2,845)	(364)	73
Movement in year	(1,473)	(2,481)	(437)
Balance at 31 December	(4,318)	(2,845)	(364)

Stock compensation

In the Group's financial statements prepared under UK GAAP, no cost is accrued for the share options awarded to employees under the Zeneca 1994 Executive Share Option Scheme, the AstraZeneca Share Option Plan, and the AstraZeneca Savings-Related Share Option Scheme as the exercise price is equivalent to the market value at the date of grant. Under US GAAP the cost is calculated as the difference between the option price and the market price at the date of grant or, for variable plans, at the end of the reporting period (until measurement date). Under the requirements of APB Opinion No. 25 any compensation cost would be amortised over the period from the date the options are granted to the date they are first exercisable. SFAS No.123 sets out an alternative methodology for recognising the compensation cost based on the fair value at grant date. Had the Group adopted this methodology, the effect on net income under US GAAP is shown below:

	2001 \$m	2000 \$m	1999 \$m
Net income/(loss) under US GAAP as reported	1,397	865	(3,539)
Compensation cost	(76)	(46)	(16)
Pro forma net income	1,321	819	(3,555)
Pro forma net income per \$0.25 Ordinary Share and ADS in accordance with US GAAP (basic and diluted):			
As reported (\$)	\$0.79	\$0.49	(\$2.26)
Pro forma (\$)	\$0.75	\$0.46	(\$2.27)

The fair value of options granted is estimated, based on the stock price at the grant date, using the Black-Scholes option pricing model with the following assumptions:

	2001	2000	1999
Dividend yield	1.5%	2.0%	3.0%
Expected volatility	20.0%	20.0%	20.0%
Risk-free interest rate	4.2%	5.9%	5.1%
Expected lives: 1994 Scheme	-	6.0 years	6.0 years
Expected lives: AstraZeneca Share Option Plan	6.0 years	6.0 years	n/a
Expected lives: SAYE Scheme	4.3 years	4.6 years	4.4 years

In the initial phase-in period, the effects of applying SFAS No.123 for disclosing compensation cost may not be representative of the effects on pro forma net income and earnings per share for future years.

Differences between UK and US accounting principles (continued)

Pension and post-retirement benefits

For the purposes of US GAAP, the pension costs of the major UK retirement plan and of the retirement plans of the major non-UK subsidiaries have been restated in the following tables in accordance with the requirements of SFAS No. 132. These plans comprise a substantial portion of the actuarial liabilities of all AstraZeneca retirement plans. The changes in projected benefit obligations, plan assets and details of the funded status of these retirement plans, together with the changes in the accumulated other post-retirement benefit obligations, under SFAS No. 132 are as follows:

Change in projected benefit obligation

	Pension benefits		Other post-retirement benefits	
	2001 \$m	2000 \$m	2001 \$m	2000 \$m
Benefit obligation at beginning of year	4,188	5,036	197	224
Service cost	102	152	7	10
Interest cost	243	301	14	17
Participant contributions	17	19	-	-
Plan amendments	(11)	-	-	(11)
Actuarial (gain)/loss	75	316	(1)	(5)
Special termination benefits	19	34	-	-
Acquisitions and disposals	-	(1,114)	-	(23)
Benefits paid	(198)	(212)	(14)	(13)
Other movements including exchange	(98)	(344)	2	(2)
Benefit obligation at end of year	4,337	4,188	205	197

Change in plan assets

	Pension benefits	
	2001 \$m	2000 \$m
Fair value at 1 January	3,803	5,035
Actual return on plan assets	45	166
Group contribution	170	244
Participant contributions	17	19
Acquisitions and disposals	-	(1,119)
Benefits paid	(198)	(212)
Other movements, including exchange	(84)	(330)
Fair value of plan assets at end of year	3,753	3,803
Funded status of plans	(584)	(385)
Unrecognised net loss/(profit)	396	124
Prior service cost not recognised	35	58
Unrecognised net obligation on implementation	6	9
	(147)	(194)
Adjustments to recognise minimum liability	-	-
Intangible assets	-	-
Accumulated other comprehensive income	-	-
Accrued benefit liability	(147)	(194)

There were no plan assets in respect of other post-retirement benefits.

Additional Information for US Investors

Differences between UK and US accounting principles (continued)

At 31 December 2001, the projected benefit obligation, accumulated benefit obligation and fair value of the plan assets in respect of the retirement plans above with accumulated benefit obligations in excess of plan assets were \$97m, \$73m and \$nil, (2000 \$3,485m, \$3,226m and \$3,122m) respectively.

Assumed discount rates and rates of increase in remuneration used in calculating the projected benefit obligations together with long term rates of return on plan assets vary according to the economic conditions of the country in which the retirement plans are situated. The weighted average rates used for calculation of year end benefit obligations and forecast benefit cost in the main retirement plans and other benefit obligations for SFAS No. 132 purposes were as follows:

	Pension benefits			Other post-retirement benefits		
	2001 %	2000 %	1999 %	2001 %	2000 %	1999 %
Discount rate	6.0	5.6	5.7	7.1	7.1	7.2
Long term rate of increase in remuneration	4.4	4.4	4.5	n/a	n/a	n/a
Expected long term return on assets	6.5	6.2	6.3	n/a	n/a	n/a

The Group has assumed a long term rate of increase in healthcare costs of 7.5%, reducing to 5.3%.

	Pension benefits			Other post-retirement benefits		
	2001 \$m	2000 \$m	1999 \$m	2001 \$m	2000 \$m	1999 \$m
Net periodic cost						
Service cost – present value of benefits accruing during the year	102	152	147	7	10	9
Interest cost on projected benefit obligations	243	301	284	14	17	11
Expected (return)/loss on assets	(242)	(322)	(277)	–	–	–
Settlement and curtailment	–	–	75	–	–	(10)
Net amortisation and deferral	39	46	69	(2)	(1)	–
Net periodic cost for the year	142	177	298	19	26	10

It is estimated that a 1 percentage point change in the weighted average healthcare costs trend would have the following effects on the accumulated benefit obligation and net periodic cost at 31 December 2001:

	1 percentage point	
	increase	decrease
Accumulated benefit obligation	11	(10)
Net periodic cost	2	(1)

Taxation

	2001 \$m	2000 \$m	1999 \$m
For the years ended 31 December			
Taxes on income from continuing operations			
UK taxation			
Corporation tax	147	79	212
Double taxation relief	(4)	(42)	(34)
Deferred taxation	10	(27)	3
Overseas taxation			
Overseas taxes	831	956	493
Deferred taxation	125	–	(865)
Share of taxation of joint ventures and associates	–	3	1
Taxes on income from continuing operations	1,109	969	(190)

Differences between UK and US accounting principles (continued)

The table below reconciles the UK statutory tax charge to the Group's actual charge on income from continuing operations.

	2001 \$m	2000 \$m	1999 \$m
For the years ended 31 December			
Income/(loss) on continuing operations	2,506	1,876	(4,261)
Taxation charge at UK corporation tax rate of 30% for 2001 (30% for 2000, 30.25% for 1999)	751	563	(1,289)
Acquisition related items	4	29	1,134
Goodwill, Advanta, and Salick Health Care impairment	190	576	275
Net effect of lower rates and eligible costs in other jurisdictions	(43)	(86)	(313)
Other	207	(113)	3
Tax on income from continuing operations	1,109	969	(190)

In 2001, claims amounting to \$109m for tax relief arising as a result of a restructuring of the AMI joint venture in 1998 were made. Under US GAAP, these reliefs are adjusted against the goodwill arising on the restructuring and included in other adjustments.

Shareholders' equity

	2001 \$m	2000 \$m
Total shareholders' equity under UK GAAP	9,786	9,521

Adjustments to conform to US GAAP

Purchase accounting adjustments (including goodwill and intangibles)		
Deemed acquisition of Astra		
Goodwill	11,062	12,610
Tangible and intangible fixed assets	8,139	9,510
Others	31	31
Capitalisation, less disposals and amortisation of interest	192	135
Deferred taxation		
On fair value of Astra	(2,313)	(2,702)
Others	(268)	(278)
Dividend	820	830
Pension expense	(162)	(129)
Post-retirement benefits/plan amendment	(28)	(32)
Software costs capitalised	110	120
Restructuring costs	–	22
Others	33	69
Shareholders' equity in accordance with US GAAP	27,402	29,707

Additional Information for US Investors

Differences between UK and US accounting principles (continued)

US GAAP condensed consolidated statement of cash flows

For the years ended 31 December	2001 \$m	2000 \$m	1999 \$m
Cash flows from operating activities	3,126	3,554	1,698
Cash flows from investing activities			
Movement in short term investments and fixed deposits	260	(608)	(97)
New fixed asset investments	(5)	(3)	(7)
Disposal of fixed assets	44	37	28
Acquisitions and disposals	(44)	740	2,235
Capital expenditure	(1,582)	(1,460)	(2,383)
Net cash outflows from investing activities	(1,327)	(1,294)	(224)
Net cash flow before financing	1,799	2,260	1,474
Cash flows from financing activities			
Equity dividends paid	(1,236)	(1,220)	(1,216)
Repurchase of AstraZeneca PLC Shares	(994)	(334)	(161)
Net increase/(decrease) in short term borrowings	7	(67)	(16)
New loans/loans repaid	28	3	(8)
Repayment of lease finance	-	(2)	(6)
Net cash outflows from financing activities	(2,195)	(1,620)	(1,407)
(Decrease)/increase in cash	(396)	640	67
Cash:			
At 1 January	908	262	206
(Decrease)/increase in cash	(396)	640	67
Exchange movements	(2)	6	(11)
At 31 December	510	908	262

(1) The acquisition of Astra in 1999 was completed as a share for share exchange.

(2) Interest paid was \$84m in 2001 (\$145m in 2000, \$87m in 1999).
Interest received was \$232m in 2001 (\$180m in 2000, \$102m in 1999).

(3) Tax paid was \$792m in 2001 (\$648m in 2000, \$952m in 1999).

Group Financial Record – UK GAAP

For the years ended 31 December	1995 \$m	1996 \$m	1997 \$m	1998 \$m	1999 \$m	2000 \$m	2001 \$m
Turnover and profits							
Group turnover	12,074	13,188	13,166	15,402	18,445	18,103	16,480
Cost of sales	(4,085)	(4,307)	(4,063)	(4,961)	(6,037)	(5,491)	(4,490)
Distribution costs	(374)	(385)	(364)	(367)	(343)	(286)	(122)
Research and development	(1,671)	(1,961)	(2,170)	(2,473)	(2,923)	(2,893)	(2,773)
Selling, general and administrative expenses	(3,566)	(3,751)	(3,838)	(4,812)	(6,585)	(5,691)	(5,509)
Other income	189	193	126	353	189	266	368
Group operating profit	2,567	2,977	2,857	3,142	2,746	4,008	3,954
Group operating profit before exceptional items	2,670	2,977	2,857	3,051	3,908	4,330	4,156
Exceptional items charged to operating profit	(103)	-	-	91	(1,162)	(322)	(202)
Share of operating profit of joint ventures and associates	354	504	722	539	(7)	(149)	-
Exceptional items	(306)	(56)	-	(29)	(776)	(150)	-
Profits on sale of fixed assets	-	-	-	-	-	-	10
Dividend income	-	-	-	-	-	3	8
Net interest	75	118	81	47	(4)	135	105
Profit on ordinary activities before taxation	2,690	3,543	3,660	3,699	1,959	3,847	4,077
Taxation	(808)	(1,040)	(1,081)	(1,086)	(815)	(1,299)	(1,099)
Profit on ordinary activities after taxation	1,882	2,503	2,579	2,613	1,144	2,548	2,978
Attributable to minorities	(25)	(19)	(9)	(2)	(1)	(10)	(11)
Net profit for the financial year	1,857	2,484	2,570	2,611	1,143	2,538	2,967
Return on sales							
Group operating profit before exceptional items as a percentage of sales	22.1%	22.6%	21.7%	19.8%	21.2%	23.9%	25.2%
Ratio of earnings to fixed charges (UK GAAP)	18.3	28.3	28.1	26.1	10.1	25.2	42.8

Ratio of earnings to fixed charges (UK and US GAAP)

For the purpose of computing these ratios, 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 (excluding capitalised interest). Fixed charges consist of interest (including capitalised interest) on all indebtedness, amortisation of debt discount and expense and that portion of rental expense representative of the interest factor. The comparative figures have been restated from those previously disclosed to reflect the reclassification of the operations of Specialties and Agrochemicals as discontinued.

At 31 December	1995 \$m	1996 \$m	1997 \$m	1998 \$m	1999 \$m	2000 \$m	2001 \$m
Balance sheets							
Fixed assets (tangible and intangible) and goodwill	5,251	5,661	5,894	8,721	9,717	7,908	8,109
Fixed asset investments	834	1,005	1,027	353	185	11	23
Current assets	8,044	9,118	9,095	9,404	9,914	10,515	9,853
Total assets	14,129	15,784	16,016	18,478	19,816	18,434	17,985
Creditors due within one year	(4,540)	(4,599)	(4,459)	(5,650)	(7,019)	(6,897)	(6,480)
Total assets less current liabilities	9,589	11,185	11,557	12,828	12,797	11,537	11,505
Creditors due after more than one year	(917)	(912)	(902)	(801)	(1,202)	(927)	(787)
Provisions for liabilities and charges	(1,031)	(1,073)	(1,049)	(1,045)	(1,253)	(1,068)	(896)
Minority equity interests	163	178	54	53	40	21	36
Shareholders' funds – equity interests	7,478	9,022	9,552	10,929	10,302	9,521	9,786
Shareholders' funds and minority interests	7,641	9,200	9,606	10,982	10,342	9,542	9,822

Group Financial Record – UK GAAP (continued)

For the years ended 31 December	1995 \$m	1996 \$m	1997 \$m	1998 \$m	1999 \$m	2000 \$m	2001 \$m
Cash flow							
Net cash inflow from operating activities	3,005	3,198	3,355	3,832	3,113	4,183	3,762
Dividends received from joint ventures and associates	243	328	369	262	3	–	–
Returns on investments and servicing of finance	65	98	(31)	103	29	19	156
Tax paid	(788)	(719)	(750)	(775)	(1,020)	(648)	(792)
Capital expenditure and financial investment	(918)	(1,182)	(1,292)	(1,369)	(2,731)	(1,426)	(1,543)
Acquisitions and disposals	(531)	227	(321)	(2,013)	1,978	740	(44)
Equity dividends paid to shareholders	(628)	(750)	(882)	(995)	(1,216)	(1,220)	(1,236)
Net cash flow before management of liquid resources and financing	448	1,200	448	(955)	156	1,648	303

Group Financial Record – US GAAP

Group Financial Record – US GAAP

The selected financial data set out below for each of the years in the five year period ended 31 December 2001, has been extracted or derived from audited financial statements.

The selected financial data should be read in conjunction with, and are qualified in their entirety by reference to, the Financial Statements and the notes thereto, which are included elsewhere in this document.

Consolidated income statement data

For the years ended 31 December	1997	1998	1999	2000	2001
Net income/(loss) from operations (\$ million)	1,142	1,036	(3,539)	865	1,097
Net income/(loss) from operations per Ordinary Share	\$1.20	\$1.09	(\$2.26)	\$0.49	\$0.62
Diluted income/(loss) from operations per Ordinary Share	\$1.20	\$1.09	(\$2.26)	\$0.49	\$0.62

Ratio of earnings to fixed charges

For the Group with estimated material adjustments to accord with US GAAP	1997	1998	1999	2000	2001
	11.6	11.7	(19.3)	15.5	25.0

Consolidated balance sheet data

At 31 December	1997 \$m	1998 \$m	1999 \$m	2000 \$m	2001 \$m
Total assets	9,577	10,675	46,640	41,500	38,081
Shareholders' equity	5,035	5,558	33,735	29,707	27,402

Merger accounting

For the purpose of US GAAP, the merger has been regarded as a purchase accounting acquisition of Astra by Zeneca. Accordingly the US GAAP results above for the period from 1997 and 1998 are not restated for the merger with Astra and represent the previously reported results of Zeneca Group PLC.

Shareholder Information

AstraZeneca	1999*	2000	2001
Ordinary Shares in issue – millions			
At year end	1,775	1,766	1,745
Weighted average for year	1,776	1,768	1,758
Stock Market price – per \$0.25 Ordinary Share			
Highest (pence)	2946	3600	3555
Lowest (pence)	2208	1926	2880
At year end (pence)	2568	3375	3098
Earnings per \$0.25 Ordinary Share before exceptional items	\$1.54	\$1.76	\$1.77
Earnings per \$0.25 Ordinary Share (basic)	\$0.64	\$1.44	\$1.69
Earnings per \$0.25 Ordinary Share (diluted)	\$0.64	\$1.44	\$1.69
Dividends	\$0.70	\$0.70 [†]	\$0.70

* For the period 1 January 1999 to 31 December 1999 (except for Stock Market prices which are for the period from 6 April 1999 to 31 December 1999).

[†] In addition, shareholders received a distribution of shares in Syngenta AG as a dividend in specie in respect of the demerger of Zeneca Agrochemicals.

Zeneca	1997	1998	1999*
Ordinary Shares in issue – millions			
At period end	949	950	953
Weighted average for period	948	950	951
Stock Market price – per \$0.25 Ordinary Share			
Highest (pence)	2265	2759	3037
Lowest (pence)	1594	1860	2406
At period end (pence)	2141	2617	3037
Earnings per \$0.25 Ordinary Share before exceptional items	\$1.26	\$1.27	
Earnings per \$0.25 Ordinary Share (basic)	\$1.26	\$1.25	
Earnings per \$0.25 Ordinary Share (diluted)	\$1.26	\$1.24	
Dividends	\$0.63	\$0.70	

* For the period from 1 January 1999 to 6 April 1999

Astra	1997	1998	1999*
Ordinary Shares in issue – millions			
At period end	1,643	1,643	1,643
Weighted average for period	1,130	1,643	1,643
Stock Market price – per Astra A Share			
Highest (SEK)	157	173	190
Lowest (SEK)	112	117	154
At period end (SEK)	138	166	190
Stock Market price – per Astra B Share			
Highest (SEK)	148	169	190
Lowest (SEK)	109	112	154
At period end (SEK)	134	165	190
Earnings per Share (SEK)	6.21	7.18	
Dividends (SEK)	1.80	1.90	

* For the period from 1 January 1999 to 6 April 1999

Percentage analysis at 31 December 2001 of issued share capital

By size of account No. of shares	2001 %
1 – 250	0.6
251 – 500	0.9
501 – 1,000	1.2
1,001 – 5,000	1.8
5,001 – 10,000	0.3
10,001 – 50,000	1.4
50,001 – 1,000,000	11.9
over 1,000,000 [†]	81.9
Issued share capital	100.0

[†] Includes VPC and ADR holdings

At 31 December 2001, AstraZeneca PLC had 179,605 registered holders of 1,745,315,488 Ordinary Shares of \$0.25 each. In addition there were approximately 51,000 holders of American Depositary Receipts (ADRs) representing 5% of the issued share capital and 156,000 holders of shares held under the VPC Services Agreement representing 24% of the issued share capital. The ADRs, each of which is equivalent to one Ordinary Share, are issued by JPMorgan Chase Bank.

Shareholder Information

AstraZeneca PLC

Since April 1999, following the AstraZeneca merger, the principal markets for trading in the shares of AstraZeneca PLC are the London, Stockholm and New York Stock Exchanges. The table below sets forth, for the four quarters of 2000 and for the first two quarters and last six months of 2001 the reported high and low share prices of AstraZeneca PLC, on the following bases:

- for shares listed on the London Stock Exchange ('LSE') the reported high and low middle market closing quotations are derived from The Daily Official List;
- for shares listed on the Stockholm Stock Exchange ('SSE') the high and low closing sales prices are as stated in the Official List;
- for American Depositary Shares ('ADS') listed on the New York Stock Exchange the reported high and low sales prices are as reported by Dow Jones (ADR quotations).

	AstraZeneca					
	Ordinary LSE		ADS		Ordinary SSE*	
	High (pence)	Low (pence)	High (US\$)	Low (US\$)	High (SEK)	Low (SEK)
2000 – Quarter 1	2971	1926	43.00	30.79	386	266
– Quarter 2	3085	2603	45.57	39.28	413	345
– Quarter 3	3590	2850	51.80	41.78	511	386.5
– Quarter 4	3600	3160	52.25	45.51	515	444
2001 – Quarter 1	3385	2880	50.88	42.70	501	400
– Quarter 2	3555	3149	50.40	45.68	540	460.5
– July	3505	3265	51.11	46.80	534	489
– August	3512	3210	50.90	47.00	532	470
– September	3306	2913	47.76	42.60	513	431
– October	3274	3045	47.45	44.49	503	465
– November	3285	3135	48.14	45.00	507	470
– December	3215	3012	46.60	44.01	483.5	458.5

* Principally held in bearer form

During 2001 AstraZeneca's share repurchase programme which was introduced in 1999 continued with the repurchase and subsequent cancellation of 23.4 million shares at a total cost of \$1,080m, representing 1.3 per cent of the total issued share capital of the Company. The average price paid per share in 2001 was 3168 pence. In 2000 and 1999 a total of 13.8 million Ordinary Shares were repurchased, and subsequently cancelled, at an average price of 2472 pence per share for a consideration, including expenses, of \$536m. The excess of the consideration over the nominal value was charged against the profit and loss account reserve. Shares issued in respect of the exercise of options totalled 2.3 million.

In 1999 in connection with the merger, AstraZeneca's share capital was redenominated into US dollars. On 6 April 1999, Zeneca shares were cancelled and US dollar shares issued, credited as fully paid on the basis of one dollar share for each Zeneca share then held. This was achieved by a reduction of capital under section 135 of the Companies Act 1985. Upon the reduction of capital becoming effective, all issued and unissued Zeneca shares were cancelled and the sum arising as a result thereof credited to a special reserve which was converted into US dollars at the rate of exchange prevailing on the record date. This US dollar reserve was then applied in paying up at par newly created US dollar shares.

At the same time as the US dollar shares were issued, the Company issued £50,000 Redeemable Preference Shares for cash at par. The Redeemable Preference Shares carry limited class voting rights and no dividend rights. This class of shares is also 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.

A total of 826 million AstraZeneca shares were issued to Astra shareholders who accepted the merger offer before the final closing date, 21 May 1999. AstraZeneca received acceptances from Astra shareholders representing 99.6 per cent of Astra's shares and the remaining 0.4 per cent was acquired in 2000 for cash.

Major shareholdings

On 17 February 2002 (not more than one month prior to the date of the Notice of Annual General Meeting) the following had disclosed an interest in the issued Ordinary Share capital of the Company in accordance with the requirements of Sections 198-208 of the Companies Act 1985:

Shareholder	Number of shares	Percentage of issued share capital
The Capital Group Companies, Inc.,	193,483,319	11.09%
Investor AB	91,545,308	5.25%
Putnam Investment Management, LLC and The Putnam Advisory Company, LLC	52,643,485	3.02%

No other person held a notifiable interest in shares, comprising 3% or more of the issued Ordinary Share capital of the Company, appearing in the register of interests in shares maintained under the provisions of Section 211 of the Companies Act 1985.

Significant changes in the percentage ownership held by major shareholders during the past three years are set out below. Major shareholders do not have different voting rights.

Shareholder	Percentage of issued share capital				
	17 Feb 2002 In AstraZeneca	9 Feb 2001 In AstraZeneca	14 Mar 2000 In AstraZeneca	1998 In Astra	16 Mar 1999 In Zeneca
The Capital Group Companies, Inc.,	11.09%	10.02%	7.80%	<3.00%	5.53%
Investor AB	5.25%	5.18%	5.20%	11.00%	<3.00%
Putnam Investment Management, LLC and The Putnam Advisory Company, LLC	3.02%	<3.00%	<3.00%		

AstraZeneca PLC American Depositary Shares (each representing one Ordinary Share) evidenced by American Depositary Receipts issued by JPMorgan Chase Bank, as depositary, are listed on the New York Stock Exchange. As of 31 January 2002, the proportion of Ordinary Shares represented by American Depositary Shares was 5.09% of the Ordinary Shares outstanding.

Number of registered holders of Ordinary Shares as of 31 January 2002:

– In the US	785
– Total	178,887

Number of record holders of American Depositary Receipts as of 31 January 2002:

– In the US	3,220
– Total	3,250

So far as the Company is aware, it is neither directly nor indirectly owned nor controlled by one or more corporations or by any government.

Shareholder Information

As of 17 February 2002 the total amount of the Company's voting securities owned by Directors and Officers of the Company was:

Title of class	Amount owned (\$0.25 shares)	Per cent of class
Ordinary Shares	478,087	0.027%

During the period 1 January 2002 to 17 February 2002, Åke Stavling increased his interest in Ordinary Shares from 8,929 to 9,023 and Claes Wilhelmsson increased his interest in Ordinary Shares from 27,462 to 27,650.

The Company does not know of any arrangements the operation of which might result in a change in the control of the Company.

Related party transactions

During the period 1 January 2002 to 17 February 2002 there were no transactions, loans, or proposed transactions between the Company and any related parties which were material to either the Company or the related party, or which were unusual in their nature or conditions. (See also Note 38 Statutory and other information).

Options to purchase securities from registrant or subsidiaries

(a) As of 17 February 2002 options outstanding to subscribe for Ordinary Shares of \$0.25 of the Company were:

Number of shares	Subscription price	Normal expiry date
23,834,482	630p-3335p	2002-2011

The weighted average subscription price of options outstanding at 17 February 2002 was 2901p. All options were granted under Company employee schemes.

(b) Included in paragraph (a) are options granted to Directors and Officers of AstraZeneca as follows:

Number of shares	Subscription price	Normal expiry date
1,081,115	748p-3335p	2002-2011

(c) Included in paragraph (b) are options granted to individually named Directors. Details of these option holdings as at 31 December 2001 are shown in Note 34 to the Financial Statements.

During the period 1 January 2002 to 17 February 2002 no Director exercised any options.

Dividend payments

The record date for the second interim dividend for 2001 payable on 8 April 2002 (in the UK, US and Sweden) is 22 February 2002. Shares trade ex-dividend on the London and Stockholm Stock Exchanges from 20 February 2002 and ADRs trade ex-dividend on the New York Stock Exchange from the same date. Future dividends will normally be paid as follows:

First interim: Announced end of July and paid in October
Second interim: Announced in February and paid in April

Registrar and Transfer Office
The AstraZeneca Registrar
Lloyds TSB Registrars
The Causeway
Worthing
West Sussex BN99 6DA
Telephone 0870 600 3956

AstraZeneca's shareholders with internet access may visit www.shareview.co.uk and register their details to create a portfolio. Shareview is a free and secure on-line service from Lloyds TSB Registrars that gives access to shareholdings including balance movements, indicative share prices and information about recent dividends.

Results

Unaudited trading results of AstraZeneca in respect of the first three months of 2002 will be published on 25 April 2002 and results in respect of the first six months of 2002 will be published on 25 July 2002.

Documents on display

The Memorandum and Articles of Association of the Company and other documents concerning the Company which are referred to in this document may be inspected at the Company's registered office at 15 Stanhope Gate, London W1K 1LN.

The Unclaimed Assets Register

AstraZeneca supplies unclaimed dividend data to the Unclaimed Assets Register (UAR) which provides investors who have lost track of shareholdings with an opportunity to search the UAR's database of unclaimed financial assets on payment of a small, fixed fee. The UAR donates part of the search fee to charity. The UAR can be contacted at 8 Devonshire Square, London EC2M 4PL and at www.uar.co.uk.

Taxation for US residents

The following summary of the principal UK and certain US tax consequences of ownership of Ordinary Shares or ADRs held as capital assets by US resident shareholders is based on current UK and US federal income tax law and practice and in part on representations of JPMorgan Chase Bank as Depository for ADRs and assumes that each obligation in the deposit agreement among the Company, the Depository and the holders from time to time of ADRs and any related agreement will be performed in accordance with its terms. The US Treasury has expressed concerns that parties to whom ADRs are pre-released may be taking actions that are inconsistent with the claiming, by US holders of ADRs, of foreign tax credits for US federal income tax purposes. Accordingly, the analysis of the creditability of UK taxes described below could be affected by future actions that may be taken by the US Treasury.

UK and US income taxes and tax treaties affecting remittance of dividends

Under the current Double Taxation (Income) Convention (the 'Convention') between the UK and the US, US resident individuals who are the beneficial owners of dividends on Ordinary Shares, or ADRs representing Ordinary Shares, in UK corporations are generally entitled to a tax credit payment in respect of dividends equal to one-ninth (1/9th) of the dividend paid (the 'Tax Credit Amount'). This tax credit payment is reduced by a UK withholding (the 'UK withholding') of up to 15% of the gross dividend paid. Therefore, a US holder will not actually receive any payment of this credit.

US resident corporate shareholders are generally treated in the same way as individuals provided that either alone, or together with associated corporations, they do not control directly or indirectly 10% or more of the voting shares of the Company and do not constitute investment or holding companies, 25% or more of the capital of which is owned, directly or indirectly, by persons that are not individuals resident in, and are not nationals of, the US.

The UK and the US have signed a new double taxation convention (the 'New Convention'), which must be ratified by the UK Parliament and the US Senate before its provisions enter into force. No assurance can be provided as to when the New Convention will enter into force. When the Convention ceases to apply, US resident shareholders will no longer be entitled to the Tax Credit Amount because the New Convention does not provide for that entitlement.

For US federal income tax purposes, the dividend paid and, if a US resident shareholder elects under the Convention to claim a foreign tax credit with respect to the UK withholding, the associated Tax Credit Amount are includible in gross income by US resident shareholders and, for foreign tax credit limitation purposes, are foreign source income, treated separately, together with other items of 'passive income' (or, in the case of certain holders, 'financial services income'). The UK withholding is treated as a foreign income tax which may, subject to certain limitations and restrictions, be eligible for credit against a US resident shareholder's US federal income tax liability (or deductible by such shareholders in computing their taxable income) for a US resident shareholder who elects to include the associated Tax Credit Amount in income.

The election described in the preceding paragraph will not be available under the New Convention and, accordingly, no foreign tax credit for the related UK withholding will be available under the New Convention with respect to dividends paid to US resident shareholders.

Shareholders whose holdings are effectively connected with a permanent establishment or fixed base in the UK, or who are corporations also resident in the UK for the purpose of the Convention, are not entitled to payment of the Tax Credit Amount nor are they subject to any deductions from the dividend.

Taxation on capital gains

Under the Convention (and the New Convention) each contracting state may in general tax capital gains in accordance with the provisions of its domestic law. Under present UK law, individuals who are neither resident nor ordinarily resident in the UK, and companies which are not resident in the UK will not be liable to UK tax on capital gains made on the disposal of their Ordinary Shares or ADRs, unless such Ordinary Shares or ADRs are held in connection with a trade, profession or vocation carried on in the UK through a branch or agency.

A US resident shareholder will recognise capital gain or loss for US federal income tax purposes on the sale or exchange of the Ordinary Shares or ADRs in the same manner as such holder would on the sale or exchange of any other shares held as capital assets. As a result, a US resident shareholder will generally recognise capital gain or loss for US federal income tax purposes equal to the difference between the amount realised and such holder's adjusted basis in the Ordinary Shares or ADRs. The gain or loss will generally be US source income or loss. US resident shareholders should consult their own tax advisors about the treatment of capital gains, which may be taxed at lower rates than ordinary income for non-corporate taxpayers and capital losses, the deductibility of which may be limited.

UK inheritance tax

Under the current Double Taxation (Estates) Convention (the 'Estate Tax Convention') between the US and the UK, Ordinary Shares or ADRs held by an individual shareholder who is domiciled for the purposes of the Estate Tax Convention in the US, and is not for the purposes of the Estate Tax Convention a national of the UK, will generally not be subject to the UK inheritance tax on the individual's death or on a chargeable gift of the Ordinary Shares or ADRs during the individual's lifetime provided that any applicable US federal gift or estate tax liability is paid, unless the Ordinary Shares or ADRs are part of the business property of a permanent establishment of the individual in the UK or, in the case of a shareholder who performs independent personal services, pertain to a fixed base situated in the UK. Where the ADRs or Ordinary Shares have been placed in trust by a settlor who, at the time of settlement, was a US resident shareholder, the ADRs or Ordinary Shares will generally not be subject to UK inheritance tax unless the settlor, at the time of settlement, was not domiciled in the US and was a UK national. In the exceptional case where the Ordinary Shares or ADRs are subject both to UK inheritance tax and to US federal gift or estate tax, the Estate Tax Convention generally provides for double taxation to be relieved by means of credit relief.

Shareholder Information

Taxation for US residents (continued)

Exchange controls and other limitations affecting security holders

(a) There are no governmental laws, decrees or regulations in the UK restricting the import or export of capital or affecting the remittance of dividends, interest or other payments to non-resident holders of Ordinary Shares or ADRs. However, a 1.5% stamp duty reserve tax is payable upon the deposit of Ordinary Shares in connection with the creation of but not subsequent dealing in ADRs. This is in lieu of the normal 0.5% stamp duty on all purchases of Ordinary Shares.

(b) There are no limitations under English law or the Company's Memorandum and Articles of Association on the right of non-resident or foreign owners to be the registered holders of and to vote Ordinary Shares or to be registered holders of notes or debentures of Zeneca Wilmington Inc.

Exchange rates

For the periods up to April 1999, Astra accounted for and reported its results in Swedish kronor, whereas Zeneca accounted for and reported its results in sterling. Consistent with AstraZeneca's decision to publish its Financial Statements in US dollars, the financial information in this document has been translated from kronor and sterling into US dollars at the following applicable exchange rates:

	SEK/USD	USD/GBP
Average rates (profit and loss account, cash flow)		
1995	7.1100	1.5796
1996	6.7000	1.5525
1997	7.6225	1.6386
1998	7.9384	1.6603
1999	8.2189	1.6247
End of year spot rates (balance sheet)		
1995	6.6500	1.5500
1996	6.8400	1.6900
1997	7.8500	1.6600
1998	8.0400	1.6600
1999	8.5130	1.6185

The following information relating to average and spot exchange rates used by AstraZeneca is provided for convenience:

	SEK/USD	USD/GBP
Average rates (profit and loss account, cash flow)		
2000	8.9103	1.5341
2001	10.3235	1.4447
End of year spot rates (balance sheet)		
2000	9.5390	1.4925
2001	10.5420	1.4501

Definitions

In this Annual Report and Form 20-F the following words and expressions shall, unless the context otherwise requires, have the following meanings:

ADR	American Depositary Receipt evidencing title to an ADS
ADS	American Depositary Share representing one underlying Ordinary Share
Depository	JPMorgan Chase Bank, as depository under the deposit agreement pursuant to which the ADRs are issued
Directors	The Directors of the Company
Company	AstraZeneca PLC
AstraZeneca, AstraZeneca Group or the Group	The Company and its subsidiaries
Ordinary Shares	Ordinary Shares of \$0.25 each in the capital of the Company
LSE	London Stock Exchange Limited
NYSE	New York Stock Exchange, Inc.
SSE	Stockholm Stock Exchange
Pound sterling, £, GBP, pence or p	References to UK currency
SEK, kronor	References to Swedish currency
UK	United Kingdom of Great Britain and Northern Ireland
US dollar, US\$ or \$	References to US currency
US	United States of America
FDA	Food and Drug Administration of the US

Figures in parentheses in tables and financial statements are used to represent negative numbers.

Except where otherwise indicated, figures included in this report relating to pharmaceutical product market sizes and market shares are obtained from syndicated industry sources, primarily IMS Health (IMS), a market research firm internationally recognised by the pharmaceutical industry. The 2001 market share figures included in this report are based primarily on data obtained from an online IMS database.

IMS data may differ from that compiled by the Group with respect to its own products. Of particular significance in this regard are the following: (1) AstraZeneca publishes its financial results on a financial year and quarterly interim basis, whereas IMS issues its data on a monthly and quarterly basis; (2) the online IMS database is updated quarterly and uses the average exchange rates for the relevant quarter; (3) IMS data from the US is not adjusted for Medicaid and similar state rebates; and (4) IMS sales data is compiled using actual wholesaler data and data from statistically representative panels of retail and hospital pharmacies, which data is then projected by IMS to give figures for national markets.

References to prevalence of disease have been derived from a variety of sources and are not intended to be indicative of the current market or any potential market for AstraZeneca's pharmaceutical products since, among other things, there may be no correlation between the prevalence of a disease and the number of individuals who are treated for such disease.

Shareholder Information

Terms used in the Annual Report and Form 20-F

	US equivalent or brief description
Accruals	Accrued expenses
Allotted	Issued
Bank borrowings	Payable to banks
Called-up share capital	Issued share capital
Capital allowances	Tax term equivalent to US tax depreciation allowances
Creditors	Liabilities/payables
Current instalments of loans	Long term debt due within one year
Debtors	Receivables and prepaid expenses
Earnings	Net income
Finance lease	Capital lease
Fixed asset investments	Non-current investments
Freehold	Ownership with absolute rights in perpetuity
Interest receivable	Interest income
Interest payable	Interest expense
Loans	Long term debt
Prepayments	Prepaid expenses
Profit	Income
Profit and loss account	Income statement/consolidated statement of income
Reserves	Retained earnings
Short term investments	Redeemable securities and short term deposits
Share premium account	Premiums paid in excess of par value of Ordinary Shares
Statement of Total Recognised Gains and Losses	Statement of Comprehensive Income
Stocks	Inventories
Tangible fixed assets	Property, plant and equipment
Turnover	Sales/revenues

Risk Factors

Risk factors

Risk of loss or expiration of patents or trade marks

Scientific and technological innovation is critical to the long term success of AstraZeneca's business. In the pharmaceutical market, a drug, diagnostic or medical device is normally only subject to competition from alternative products during the period of patent protection, but thereafter it will also be open to competition from generic copy products. We believe that we have patent or trade mark protection for many of our most important products, although certain important patents have recently expired or will expire in the near future.

In particular, patents covering the compound, omeprazole, the active substance in *Losec (Prilosec in the US)*, which in 2001 accounted for 34.5% of our sales from continuing operations, have now expired in all major markets. Patent term extensions extend substance patent protection until 2004 in Japan, and supplementary protection certificates ('SPCs') extend substance patent protection until 2002-2005 in most of Europe. The six months' marketing exclusivity for *Prilosec* granted by the US Food and Drug Administration following its acceptance of our paediatric data expired in October 2001. The trial relating to our defence of certain other patents, including formulation patents, relating to *Prilosec* started in New York in December 2001. Patents protecting the salt in *Losec MUPS* expire in Europe in 2004 and in the US in 2005. Formulation patents relating to *Losec* remain until 2007 in most major markets.

Zestril patent protection in the US expired in December 2001. In November 2001, following our compliance with the FDA's written request for paediatric data, the FDA granted six months' marketing exclusivity for *Zestril* until June 2002.

Nolvadex patent protection in the US expires in August 2002. The FDA has requested paediatric data for *Nolvadex* and we are complying with this request which may result in *Nolvadex* being granted six months' marketing exclusivity.

The expiration or loss of certain patents or trade marks could have an adverse effect on the pricing and sales with respect to these products and, consequently, could result in a material adverse effect on AstraZeneca's financial condition, liquidity and results of operations.

Impact of fluctuations in exchange rates

The results of operations of AstraZeneca are accounted for in US dollars. Approximately 53% of our 2001 sales were in the Americas (comprised of the US, Canada and Latin America) with a significant proportion of that figure being in respect of US sales. The US is, and is expected to remain, our largest and potentially fastest growing major market. Sales in certain other countries are also in US dollars, or in currencies whose exchange rates are linked to the US dollar. Major components of our cost base are, however, located in Europe, where an aggregate of approximately 58% of our employees are based. Movements in the exchange rates used to translate foreign currencies into US dollars may therefore have a significant impact on AstraZeneca's reported results of operations from year to year.

Certain subsidiaries of AstraZeneca import and export goods and services in currencies other than their own functional currency, although we minimise this practice. The results of such subsidiaries could, therefore, be affected by currency fluctuations arising between the transaction dates and the settlement dates for those transactions. We hedge these exposures through financial instruments in the form of forward contracts and currency swaps. The notional principal amount of financial instruments used to hedge these exposures, principally forward foreign exchange contracts and purchased currency options, at 31 December 2001 was \$2,606 million. We have policies that seek to mitigate the effect of exchange rate fluctuations on the value of foreign currency cash flows and in turn their effects on the results of the various subsidiaries, but do not seek to remove all such risks. In general, a unilateral strengthening of the US dollar adversely affects our results whereas a weakening of the US dollar is generally favourable. We cannot ensure that exchange rate fluctuations will not have a material adverse effect on our business, financial condition or results of operations in the future.

Risk that R&D will not yield new products that achieve commercial success

Like other pharmaceutical companies, we devote substantial resources to R&D. In the pharmaceutical industry, R&D is expensive, prolonged and entails considerable uncertainty. The process of developing a new pharmaceutical product, from the start of development to the submission of an application for registration, may take between five and seven years, but this period varies considerably from case to case and country to country. Because of the complexities and uncertainties associated with pharmaceutical research, it cannot be ensured that compounds currently under development will survive the development process and ultimately be granted the regulatory approvals needed to market such products successfully. For example, in 2001 we discontinued the development of *Viozan* for the treatment of chronic obstructive pulmonary disease after the promising efficacy of the compound in early clinical trials was not sustained in later trials. At the same time, we discontinued development of AR-C89855, a compound similar to *Viozan*, in the light of the *Viozan* trial results. We also discontinued the development of remacemide, a potential treatment for Huntington's chorea and Parkinson's disease, during 2001 for failure to meet target efficacy criteria. The LTA (sodium channel blocker) programme in analgesia in our pain control therapeutic area was also discontinued during the year for failure to meet target criteria. There can be no assurances regarding the development and commercial success of any of the products in our current pipeline. The commercial success of those products is of particular importance to us in view of the expiry of patent protection in major markets for a number of our key current products in the 2001-2002 period.

Risk Factors

Competition, price controls and price reductions

The principal markets for our pharmaceutical products are the US, the countries of the European Union and Japan. These markets are highly competitive and regulatory and pricing pressures have become increasingly demanding.

Currently there is no direct government control of prices for non-government sales in the US. In 1990, however, federal legislation was enacted which required drug manufacturers to agree to substantial rebates in order for the manufacturer's drugs to be reimbursed by state Medicaid programmes, and an additional rebate if manufacturer price increases after 1990 exceed the increase in inflation. In addition, certain states have taken action to require further manufacturer rebates on Medicaid drug utilisation and for other state pharmaceutical assistance programmes. Congress also has enacted statutes that place a ceiling on the price manufacturers may charge US government agencies, thereby causing a substantial discount, as well as establishing a minimum discount (comparable to the Medicaid rebate) on manufacturers' sales to certain clinics and hospitals that serve the poor and other populations with special needs. These government initiatives together with competitive market pressures have contributed to restraints on realised prices.

Pending legislation in the US may also affect the pricing of and access to pharmaceutical products. If drug importation into the US market from other countries with lower prices becomes a reality, parallel import activity will affect realised prices. On the other hand, outpatient prescription drug coverage could improve access to pharmaceutical products for senior citizens, albeit at potentially lower realised prices.

In addition, realised prices are being depressed by pressure from managed care and institutional purchasers who use cost considerations to restrict the sale of preferred drugs that their physicians may prescribe as well as other competitive activity. Such limited lists or formularies may force manufacturers either to reduce prices or be excluded from the list, thereby losing all the sales revenue from patients covered by that formulary. The use of strict formularies by institutional customers is increasing rapidly in response to the current cost containment environment, resulting in lower margins on such sales.

Some governments in Europe, notably Italy and Spain, set price controls having regard to the medical, economic and social impact of the product. In other European countries, primarily Germany, the UK, the Netherlands and, more recently, France, governments are exerting a strong downward pressure on prices by incentives and sanctions to encourage doctors to prescribe cost-effectively. Efforts by the European Commission to harmonise the disparate national systems have met with little immediate success, leaving the industry exposed to ad hoc national cost containment measures on prices and the consequent parallel trading of products from markets with prices depressed by governments into those where higher prices prevail.

There is formal central government control of prices in Japan. New product prices are determined primarily by comparison with existing products for the same medical condition. All existing products are subject to a price review at least every two years. Regulations introduced in 2000 included provisions allowing a drug's price to be set according to the average price of the product in four major countries (the US, the UK, Germany and France).

Difficulties of obtaining government regulatory approvals for new products

AstraZeneca is subject to strict controls on the manufacture, labelling, distribution and marketing of pharmaceutical products. The requirement to obtain regulatory approval based on safety, efficacy and quality before such products may be marketed in a particular country and to maintain and to comply with licences and other regulations relating to their manufacture are particularly important. The submission of an application to a regulatory authority does not guarantee that approval to market the product will be granted. The countries that constitute material markets for our pharmaceutical products include the US, the countries of the European Union and Japan. Approval of such products is required by the relevant regulatory authority in each country, although in Europe, single marketing authorisation can govern the approval of products throughout the European Union through a centralised procedure. In addition, each jurisdiction has very high standards of regulatory approval and, consequently, in most cases, a lengthy approval process. Furthermore, each regulatory authority may impose its own requirements and may refuse to grant, or may require additional data before granting, an approval even though the relevant product has been approved in another country.

Regulatory authorities also have administrative powers that include product recalls, seizure of products and other sanctions for non-compliance with their requirements. Compliance can involve substantial costs and non-compliance could adversely impact the manufacturing, marketing and sales of our products.

Risk of substantial product liability claims

Given the widespread impact ethical prescription drugs may have on the health of large patient populations, pharmaceutical and medical device companies have, historically, been subject to large product liability damages claims, settlements and awards for injuries allegedly caused by the use of their products. Substantial product liability claims that are not covered by insurance could have a material adverse effect on AstraZeneca's operating results or financial condition.

Historical US environmental liabilities

AstraZeneca has environmental liabilities at some currently or formerly owned, leased and third party sites in the US. In particular, we or our indemnitees have been named as potentially responsible parties in respect of 28 sites under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, and similar statutes (although we expect to be indemnified against liability associated with nine of these sites by the seller or owner of the businesses associated with such sites). There is no reason for us to believe that current and expected expenditures and risks occasioned by these circumstances are likely to impair materially AstraZeneca's financial position although, they could, to the extent that they exceed applicable provisions, have a material adverse effect on AstraZeneca's results of operations for the relevant period. In addition, a change in circumstances (including a change in applicable laws or regulations) may result in such a material adverse effect.

Risks associated with forward-looking statements

This report contains certain forward-looking statements about AstraZeneca. Although we believe our expectations are based on reasonable assumptions, any forward-looking statements may be influenced by factors that could cause actual outcomes and results to be materially different from those predicted. Forward-looking statements are identified in this report, by using the words 'anticipates', 'believes', 'expects', 'intends' and similar expressions in such statements. These forward-looking statements are subject to numerous risks and uncertainties. Important factors that could cause actual results to differ materially from those in forward-looking statements, certain of which are beyond our control, include, among other things: exchange rate fluctuations, the risk that R&D will not yield new products that achieve commercial success, the impact of competition, price controls and price reductions, the risk of loss or expiration of patents or trade marks, the difficulties of obtaining and maintaining governmental approvals for products, the risk of substantial product liability claims and exposure to environmental liability.

Additional Information

History and development of the Company

AstraZeneca PLC was incorporated in England and Wales on 17 June 1992 under the Companies Act 1985. It is a public limited company domiciled in the UK. The Company's registered number is 2723534 and its registered office is at 15 Stanhope Gate, London W1K 1LN (telephone + 44 (0)20 7304 5000). From February 1993 until April 1999, the Company was called Zeneca Group PLC. On 5 April 1999, the Company changed its name to AstraZeneca PLC.

The Company was formed when the pharmaceutical, agrochemical and specialty chemical businesses of Imperial Chemical Industries PLC were demerged in 1993. In 1999, the Company sold the specialty chemical business. Also in 1999, the Company merged with Astra AB of Sweden. In 2000, it demerged the agrochemical business and merged it with the similar agribusiness of Novartis AG to form a new company called Syngenta AG.

The Company owns and operates numerous R&D, production and marketing facilities worldwide. Its corporate headquarters are at 15 Stanhope Gate, London, W1K 1LN and its R&D headquarters are at SE-151 85 Södertälje, Sweden.

Memorandum and Articles of Association

Objects

As is typical of companies registered in England and Wales, the Company's objects, which are detailed in the Memorandum of Association, are broad and wide-ranging and include manufacturing, distributing and trading pharmaceutical products.

Directors

Subject to certain exceptions, Directors do not have power to vote at Board Meetings on matters in which they have a material interest.

The quorum for meetings of the Board of Directors is a majority of the full Board, of whom at least four must be Non-Executive Directors. In the absence of a quorum, the Directors do not have power to determine compensation arrangements for themselves or any member of the Board.

The Board of Directors may exercise all the powers of the Company to borrow money. Variation of these borrowing powers would require the passing of a special resolution of the Company's shareholders.

Directors are not required to retire at a particular age.

Directors are required to beneficially own Ordinary Shares in the Company of an aggregate nominal amount of \$125. At present, this means they must own at least 500 shares.

Rights, preferences and restrictions attaching to shares

The share capital of the Company is divided into 2,400,000,000 Ordinary Shares with a nominal value of \$0.25 each and 50,000 Redeemable Preference Shares with a nominal value of £1.00 each. The rights and restrictions attaching to the Redeemable Preference Shares differ from those attaching to Ordinary Shares as follows:

- the Redeemable Preference Shares carry no rights to receive dividends;
- the holders of Redeemable Preference Shares have no rights to receive notices of, attend or vote at general meetings except in certain limited circumstances; they have one vote for every 50,000 Redeemable Preference Shares held;
- on a distribution of assets of the Company on a winding-up or other return of capital (subject to certain exceptions), the holders of Redeemable Preference Shares have priority over the holders of Ordinary Shares to receive the capital paid up on those shares; and
- subject to the provisions of the Companies Act 1985, the Company has the right to redeem the Redeemable Preference Shares at any time on giving not less than seven days' written notice.

Action necessary to change the rights of shareholders

In order to vary the rights attached to any class of shares, the consent in writing of the holders of three quarters in nominal value of the issued shares of that class or the sanction of an extraordinary resolution passed at a general meeting of such holders is required.

Annual general meetings and extraordinary general meetings

Annual general meetings and extraordinary general meetings where a special resolution is to be passed or a Director is to be appointed require 21 'clear days' notice to shareholders. All other extraordinary general meetings require 14 'clear days' notice.

For all general meetings, a quorum of two shareholders present in person or by proxy is required.

Shareholders and their duly appointed proxies and corporate representatives are entitled to be admitted to general meetings.

Limitations on the rights to own shares

There are no limitations on the rights to own shares.

Material contracts

Agreement between AstraZeneca PLC and Novartis AG entered into on 2 December 1999, as amended and restated on 7 September 2000 concerning the demerger of the Zeneca Agrochemicals business and its merger with the Novartis agribusiness to form Syngenta AG (the 'master agreement'):

The master agreement provides for:

- the separation of the Zeneca Agrochemicals business and the Novartis agribusiness from the remaining businesses of AstraZeneca and Novartis; and
- the combination of the Zeneca Agrochemicals business and the Novartis agribusiness under Syngenta (the 'transaction').

Pursuant to the master agreement, AstraZeneca agreed to demerge its agrochemicals business and Novartis to demerge its agribusiness, and the consolidation of both into Syngenta. AstraZeneca and Novartis made certain representations and warranties relating to the assets and liabilities of the Zeneca Agrochemicals business and the Novartis agribusiness and, respectively, the profits made by such businesses and the accuracy of the financial data and certain other publicly available information. In addition, each of AstraZeneca and Novartis gave certain covenants relating to the separation of the Zeneca Agrochemicals business and the Novartis agribusiness, respectively, from the other business of AstraZeneca and Novartis, the establishment of historical financial accounts and agreed to do or procure all such acts and things necessary or appropriate to complete the transaction as soon as reasonably practicable.

Further, each of AstraZeneca and Novartis agreed, following the completion of the transaction:

- to co-operate with Syngenta to negotiate and to act in accord with various agreements governing the separation of the Zeneca Agrochemicals business and the Novartis agribusiness and certain supplementary agreements and arrangements. Pursuant to these agreements and arrangements, AstraZeneca, Novartis and Syngenta have, as appropriate, provided and received indemnification from the other(s) in respect of relevant liabilities pertaining to the respective businesses (including in relation to certain environmental liabilities) as well as potential liabilities arising from the transaction;
- not to, and to procure that each member of the AstraZeneca group or the Novartis group will not, within a period of 18 months after the completion of the transaction, solicit for employment a defined category of Syngenta employees; and
- to ensure Syngenta was able to implement, as the Syngenta board judged appropriate, a share repurchase of up to 10% of the issued share capital of Syngenta. AstraZeneca and Novartis agreed to make a capital contribution to Syngenta in the ratio of 39:61 for the amount of any share repurchases made by Syngenta in the first 10 days following completion of the transaction.

The obligations of the parties to complete the master agreement and the transaction contemplated by it were subject to the satisfaction of numerous conditions, including the absence of a material adverse change in either the Zeneca Agrochemicals business or the Novartis agribusiness and the registration in the commercial register of three capital increases of Syngenta.

The master agreement provided for certain compensation payments to be made in the event that the transaction had not been completed or the master agreement had been terminated due to certain circumstances.

The master agreement is governed by, and will be construed in accordance with, the laws of Switzerland.

Cross Reference to Form 20-F

The information in this document that is referenced on this page is included in the Annual Report on Form 20-F for 2001 (2001 Form 20-F) and is filed with the Securities and Exchange Commission (SEC). The 2001 Form 20-F is the only document intended to be incorporated by reference into any filings by AstraZeneca under the Securities Act of 1933, as amended. References to major headings include all information under such major headings, including subheadings. References to subheadings include only the information contained under such subheadings. Graphs are not included unless specifically identified opposite. The 2001 Form 20-F has not been approved or disapproved by the SEC nor has the SEC passed comment upon the accuracy or adequacy of the 2001 Form 20-F. The 2001 Form 20-F filed with the SEC may contain modified information and may be updated from time to time.

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