

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

Amendment No. 2 to

**FORM 20-F**

(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF  
THE SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934

Commission file number

**BAYER AKTIENGESELLSCHAFT**

*(Exact name of Registrant as specified in its charter)*

**BAYER CORPORATION\***

*(Translation of Registrant's name into English)*

**Federal Republic of Germany**

*(Jurisdiction of incorporation or organization)*

**Bayerwerk, Gebäude W1**

**Kaiser-Wilhelm-Allee**

**51368 Leverkusen, GERMANY**

*(Address of principal executive offices)*

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class:

Name of each exchange on which registered:

American Depositary Shares representing Bayer AG

ordinary shares of no par value . . . . .

New York Stock Exchange

Bayer AG ordinary shares of no par value . . . . .

New York Stock Exchange\*\*

Securities registered or to be registered pursuant to Section 12(g) of the Act.

None

(Title of class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None

(Title of class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

As of December 31, 2000, 730,341,920 ordinary shares, of no par value, of Bayer AG were outstanding.

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No  Not applicable.

Indicate by check mark which financial statement item the registrant has elected to follow:

Item 17  Item 18

\* Bayer Corporation is also the name of a wholly-owned subsidiary of the registrant in the United States.

\*\* Not for trading, but only in connection with the registration of American Depositary Shares.

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## **Forward-Looking Information**

This registration statement contains forward-looking statements that reflect our plans and expectations. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance, achievements or financial position to be materially different from any future results, performance, achievements or financial position expressed or implied by these forward-looking statements. These factors include:

- Cyclicalities in our industries;
- Reduced demand for older products in response to advances in biotechnology;
- Increasingly stringent regulatory controls;
- Increased raw materials prices;
- The expiration of patent protections;
- Environmental liabilities and compliance costs;
- Failure to compete successfully, integrate acquired companies or develop new products and technologies;
- Risks from hazardous materials;
- Litigation and product liability claims; and
- Fluctuations in currency exchange rates.

A discussion of these and other factors which may affect our actual results, performance, achievements or financial position is contained in Item 3, *Key Information — Risk Factors*, Item 5, *Operating and Financial Review and Prospects* and elsewhere in this registration statement.

## **Enforceability of Civil Liabilities under U.S. Federal Securities Laws**

We are a German corporation. All of our directors and executive officers, and the experts named in this Registration Statement, are residents of Germany. A substantial portion of our assets and those of such individuals is located outside the United States.

As a result, although a multilateral treaty to which both Germany and the United States are party guarantees service of writs and other legal documents in civil cases if the current address of the defendant is known, it may be difficult or impossible for you to effect service of process upon these persons from within the United States.

Also, because these persons and assets are outside the United States, it may be difficult for you to enforce judgements against them in the United States, even if these judgements are of U.S. courts and are based on the civil liability provisions of the U.S. securities laws.

If you wish to execute in Germany the judgement of a foreign court, you must first obtain from a German court an order for execution (*Vollstreckungsurteil*). A German court may grant an order to execute a U.S. court judgement with respect to civil liability under the U.S. federal securities laws if that judgement is final as a matter of U.S. law. In granting the order, the German court will not enquire whether the U.S. judgement was, as a matter of U.S. law, correct. However, the German court must refuse to grant the order if:

- the U.S. court lacked jurisdiction, as determined under German law;
- the person against whom the judgement was obtained did not receive service of process adequate to permit a proper defence, did not otherwise acquiesce in the original action and raises the lack of service of process as a defence against the grant of the execution order;
- the judgement would conflict with the final judgement of a German court or with the final judgement of another foreign court that is recognizable under German law;

- recognition of the judgement would violate an important principle of German law, especially basic constitutional rights; or
- there is a lack of reciprocity between Germany and the jurisdiction whose court rendered the original judgement.

You should be aware that German courts hold certain elements of some U.S. court judgements, for example punitive damages, to violate important principles of German law. Judgements for ordinary compensatory damages are generally enforceable, unless in an individual case one of the reasons described above would forbid enforcement.

If you bring an original action before a German court based on the provisions of the U.S. securities laws and the court agrees to take jurisdiction over the case, the court will decide the matter in accordance with the applicable U.S. laws, to the extent that these do not violate important principles of German law. However, the court may refuse to accept jurisdiction if another action is pending before a U.S. or other foreign court in the same matter. Furthermore, the court might decide that, for a lawsuit brought by a U.S. resident under U.S. law against a defendant that, like Bayer, has a significant presence in the United States, a U.S. court would be the more proper forum.

## PART I

### Item 1. Identity of Directors, Senior Management and Advisors

#### Directors and Senior Management

The following table sets forth information about the members of our Board of Management (*Vorstand*). The address of each person listed is c/o Bayer AG, 51368 Leverkusen, Germany.

<u>Name</u>	<u>Position</u>
Dr. Manfred Schneider . . . . .	Chairman, Board of Management
Dr. Attila Molnar . . . . .	Member, Board of Management
Dr. Frank Morich . . . . .	Member, Board of Management
Dr. Udo Oels . . . . .	Member, Board of Management
Werner Spinner . . . . .	Member, Board of Management
Werner Wenning . . . . .	Member, Board of Management
Dr. Gottfried Zaby . . . . .	Member, Board of Management

#### Auditors

<u>Name</u>	<u>Address</u>
PwC Deutsche Revision Aktiengesellschaft Wirtschaftsprüfungsgesellschaft	Friedrich-List-Strasse 20, 45128 Essen, Germany

### Item 2. Offer Statistics and Expected Timetable

Not applicable.

### Item 3. Key Information

#### Selected Financial Data

We derived the following selected financial data for each of the years in the five-year period ended December 31, 2000, from our consolidated financial statements and for the six month periods ended June 30, 2001 and 2000 from our unaudited consolidated financial statements. We have prepared our consolidated financial statements in accordance with International Accounting Standards, or IAS and where indicated, in accordance with U.S. Generally Accepted Accounting Standards or U.S. GAAP. Note 44 to our consolidated financial statements and Note 7 to our unaudited consolidated financial statements included in Item 18 of this registration statement describe the reconciliation of significant differences between IAS and U.S. GAAP.

Since January 1, 1999, we have prepared our financial statements in European Union euros (€). We originally prepared our consolidated financial statements for the years ending December 31, 1997 and 1998, in German marks (*Deutsche Mark*, or DM). We have restated these financial statements in euros, converting German mark values to euro values at the irrevocably fixed conversion rate of DM 1.95583 = €1.00. These restated financial statements depict the same trends and relationships among our financial accounts as do the corresponding original financial statements that we reported in German mark amounts prior to the introduction of the euro. Unless otherwise indicated, we have expressed all monetary amounts (except per share amounts) in the consolidated financial statements and in the notes in millions of euros.

In this registration statement we have translated certain euro amounts into U.S. dollar amounts at the rate of \$0.8474 = €1.00, the noon buying rate on June 29, 2001. We have translated these amounts solely for your convenience, and you should not assume that, on that or any other date, one could have converted these amounts of euros into dollars at that or any other exchange rate.

The financial information presented below is only a summary. You should read it together with the consolidated financial statements included in Item 18.

#### Consolidated Income Statement Data

	Six months ended June 30,			Year ended December 31,					
	2001	2001	2000	2000	2000	1999	1998(1)	1997(1)	1996(1)
	\$	€	€	\$	€	€	€	€	€
	(in millions, except per share data)								
	(unaudited)								
<b>IAS:</b>									
<b>Net sales</b> .....	13,535	15,972	15,238	26,245	30,971	27,320	28,062	28,124	24,853
Of which discontinuing operations .....	300	354	739	1,263	1,491	2,973	5,586	5,497	4,980
<b>Operating result</b> .....	1,416	1,671	1,994	2,785	3,287	3,357	3,155	3,077	2,306
Of which discontinuing operations .....	267	315	73	131	155	1,178	403	468	162
Non-operating result .....	(195)	(230)	(218)	(252)	(297)	(521)	(427)	(465)	(23)
Income before income taxes .....	1,221	1,441	1,776	2,534	2,990	2,836	2,728	2,612	2,283
Income taxes .....	(370)	(437)	(732)	(973)	(1,148)	(818)	(1,113)	(1,102)	(878)
Income after taxes .....	851	1,004	1,044	1,561	1,842	2,018	1,615	1,510	1,405
Minority stockholders' interest .....	(2)	(2)	11	(22)	(26)	(16)	(1)	(6)	(11)
<b>Net income</b> .....	852	1,006	1,033	1,539	1,816	2,002	1,614	1,504	1,394
Average number of shares in issue .....	730.34	730.34	730.34		730.34	730.34	730.34	726.81	707.01
Basic net income per share .....	1.17	1.38	1.41	2.11	2.49	2.74	2.21	2.07	1.97
Diluted net income per share .....	1.17	1.38	1.41	2.11	2.49	2.74	2.21	2.07	1.95
Dividends per share .....	—	—	—	1.19	1.40	1.30	1.02	0.97	0.87
<b>U.S. GAAP:</b>									
Net income .....	789	931	1,006	1,512	1,783	1,967	—	—	—
Basic and diluted net income per share .....	1.08	1.28	1.38	2.07	2.44	2.69	—	—	—

## Consolidated Balance Sheet Data

	Six months ended			Year ended December 31,					
	June 30,								
	2001	2001	2000	2000	2000	1999	1998(1)	1997(1)	1996(1)
	\$	€	€	\$	€	€	€	€	€
	(in millions, except per share data)								
	(unaudited)								
<b>IAS:</b>									
<b>Total Assets</b> .....	33,316	39,315	33,850	30,889	36,451	31,279	29,377	27,697	25,283
Of which discontinuing operations .....	206	243	1,002	980	1,157	950	4,788	4,825	4,579
Stockholders' equity .....	14,657	17,296	15,156	13,677	16,140	15,006	12,568	12,009	10,532
Liabilities .....	18,572	21,916	18,504	17,011	20,074	16,097	16,598	15,465	14,517
Of which long-term financial obligations .....	2,746	3,240	3,015	2,375	2,803	2,359	2,404	2,150	1,615
Of which discontinuing operations .....	64	75	483	486	574	476	2,246	2,062	2,036
<b>U.S. GAAP:</b>									
Stockholders' equity .....	15,981	18,859	17,941	16,194	19,110	17,177	—	—	—
Total assets .....	34,032	40,160	35,957	32,828	38,740	32,769	—	—	—

(1) The 1998, 1997 and 1996 figures have been restated from German marks into euro at the irrevocably fixed conversion rate of DM 1.95583 = €1.00.

## Dividends

The following table indicates the dividend amount per share we paid for the years 2000, 1999, 1998, 1997 and 1996. The table shows dividend amounts in euro for each of the years indicated. The table also reflects the related tax credits available to German taxpayers who receive dividend payments. Shareholders who are U.S. residents should be aware that they will be subject to German withholding tax on dividends received. See Item 10, *Additional Information — Taxation*.

	2000	1999	1998	1997	1996
	(in euros)				
Total dividend (€ in millions) .....	1,022	949	747	710	629
Dividend per share .....	1.40	1.30	1.02	0.97	0.87
Tax credit .....	0.45	0.08	0.33	0.41	0.37

See also “Dividend Policy and Liquidation Proceeds” in Item 8, *Financial Information*.

## Exchange Rate Data

The following table shows, for the periods and dates indicated, the exchange rate of the euro to the U.S. dollar based on the noon buying rate of the Federal Reserve Bank of New York. For periods prior to the introduction of the euro on January 1, 1999, we have converted the then-prevailing German mark/U.S. dollar rates to a notional euro/dollar rate at the irrevocably fixed euro/mark rate of €1.00 = DM 1.95583. Fluctuations in the exchange rate between the euro and the dollar will affect the market price of the shares and the ADSs, the dollar amount received by holders of shares and the ADSs on conversion by the Depositary of any cash dividends paid in euro and the dollar translation of our results of operations and financial condition.

Year	Period End	Average	High	Low
1997 .....	1.0871	1.1287	1.2690	1.0398
1998 .....	1.1733	1.1132	1.2178	1.0548
1999 .....	1.0070	1.0655	1.1812	1.0016
2000 .....	0.9388	0.9233	1.0335	0.8270
2001 .....	0.8901	0.8909	0.9535	0.8370

<u>Previous six months</u>	<u>High</u>	<u>Low</u>
July 2001 .....	0.8797	0.8370
August 2001 .....	0.9194	0.8775
September 2001 .....	0.9310	0.8868
October 2001 .....	0.9181	0.8893
November 2001 .....	0.9044	0.8770
December 2001 .....	0.9044	0.8773

### Capitalization and Indebtedness

	<u>September 30, 2001</u> (euros in millions)
<b>IAS:</b>	
Short-term debt .....	<u>4,956</u>
Long-term debt .....	<u>3,003</u>
Shareholders' equity:	
Capital stock: 730,341,920 ordinary shares of no par value; €256 million authorized, €83 million conditional .....	1,870
Capital reserves .....	2,942
Retained earnings .....	10,137
Net income .....	823
Translation differences .....	<u>533</u>
Shareholders' equity .....	16,305
Minority shareholders' interest .....	<u>102</u>
Total capitalization .....	<u><u>24,366</u></u>

## **Risk Factors**

*An investment in our shares or ADSs involves a significant degree of risk. You should carefully consider these risk factors and the other information in this registration statement before deciding to invest in our shares or ADSs. The risks described below are not the only ones that may exist. The occurrence of any of these events could seriously harm our business, operating results and financial condition. In that case, the trading price of our shares or ADSs could decline and you could lose all or part of your investment.*

### ***Cyclicality may reduce our operating margins or cause operating losses***

Several of the industries in which Bayer operates are cyclical. In particular, these industries include chemicals and polymers. Typically, increased demand during peaks in the business cycle in these industries leads producers to increase their production capacity. Although peaks in the business cycle have been characterized by increased selling prices and higher operating margins, in the past these capacity increases have led to overcapacities because they have exceeded demand growth. Low periods in the business cycles are then characterized by decreasing prices and excess capacity. These factors can depress operating margins and may result in operating losses.

We believe that several areas within the chemical and polymer industries currently show overcapacity, especially those areas, such as basic chemicals, that are subject to commoditization, and we expect that there may be further capacity additions in the next few years. We cannot assure you that future growth in demand will be sufficient to absorb current overcapacity or future capacity additions without significant downward pressure on prices and adverse effects on operating results.

The agriculture sector is moreover subject to seasonal and weather factors and fluctuations in crop prices, which can make its operations less predictable than those of our other business segments.

### ***Advances in biotechnology may reduce demand for some of our older products***

The growing importance of biotechnology, especially in the pharmaceutical and crop protection fields, could reduce market demand for some traditional products. In particular, new agrochemical compounds that achieve similar or improved results with less toxicity and smaller doses may reduce market demand for traditional chemical products.

### ***Regulatory controls and changes in public policy may reduce the profitability of new or current products***

We must comply with a broad range of regulatory controls on the testing, manufacture and marketing of many of our products. In some countries, including the United States, regulatory controls have become increasingly demanding. We expect that this trend will continue and will expand to other countries, particularly those of the European Union. A proposed new EU chemicals policy could mandate a significant increase in the testing and assessment of basic chemicals and chemical intermediates, leading to increased costs and reduced operating margins for these products. Although we have adopted measures to address these stricter regulations, such as increasing the efficiency of our internal research and development process in order to reduce the impact of extended testing on time-to-market, we cannot assure you that stricter regulatory regimes will not delay product development or restrict marketing and sales.

Our Pharmaceuticals and Consumer Care & Diagnostics segments are subject to particularly strict regulatory regimes. Failure to achieve regulatory approval of new products can mean that we do not recoup our research and development investment through sales of that product. Withdrawal by regulators of an approval previously granted can mean that the affected product ceases to generate revenue. This can occur even if regulators take action falling short of actual withdrawal. For example, the U.S. Food and Drug Administration issued a recommendation to all manufacturers of products containing phenylpropanolamine (PPA). As a result, we voluntarily discontinued marketing our Consumer Care products that contained this substance. In addition, in some cases we may voluntarily cease marketing a product even in the absence of regulatory action, as in the case of our cerivastatin anti-cholesterol drugs.

Pharmaceutical product prices are subject to controls or pressures in many markets. Some governments intervene directly in setting prices. In addition, in some markets major purchasers of pharmaceutical products (whether governmental agencies or private health care providers) have the economic power to exert substantial pressure on prices. Price controls limit the financial benefits of growth in the life sciences markets and the introduction of new products. We cannot predict whether existing controls will increase or new controls will be introduced, further limiting our financial benefits from these products.

Similarly, international negotiations currently ongoing at the World Trade Organization may affect the agriculture policy of the European Union. For example, a change in EU agricultural policy leading to an increase in “set aside” acreage could reduce the overall market for agricultural products in the European Union. Additionally, a radical review and reduction of pricing support in the European Union could affect customer and pricing structure and harm our operating results. It is impossible at present to determine precisely what changes, if any, may occur or when. We expect the operating results of our Crop Protection and Animal Health segments to reflect the uncertainties of this industry.

***Our operating margins may decrease if we cannot pass increased raw material prices on to customers or if prices for our products decrease faster than raw material prices***

Significant variations in the cost and availability of raw materials and energy may reduce our operating results. Bayer uses significant amounts of petrochemical-based raw materials in manufacturing a wide variety of our products. We also purchase significant amounts of natural gas, coal, electricity and fuel oil to supply the energy required in our production processes. The prices and availability for these raw materials and energy vary with market conditions and may be highly volatile. There have been in the past, and may be in the future, periods during which we cannot pass raw material price increases on to customers. Even in periods during which raw material prices decrease, we may suffer decreasing operating profit margins if the prices of raw materials decrease more slowly than do the selling prices of our products. In the past, we have entered into hedging arrangements with respect to raw materials prices only to a limited extent. If the market for these hedging arrangements attains sufficient liquidity and we can obtain their protection at a reasonable cost, we would consider making more extensive use of these hedge instruments.

***The loss of patent protection may result in loss of sales to competing products***

During the life of its patent, a patented product is normally only subject to competition from alternative products. After a patent expires, the producer of the formerly patented product is likely to face increased competition from generic products entering the market. This competition is likely to reduce market share and sales revenue. See Item 4, *Information on the Company — Intellectual Property Protection*, for a discussion of the scheduled expiration dates of our significant patents. In addition, generic drug manufacturers, particularly in the United States, may seek marketing approval for pharmaceutical products currently under patent protection by attacking the validity or enforceability of a patent. If a generic manufacturer succeeds in voiding a patent protecting one of our products, that product could be exposed to generic competition before the natural expiration of the patent. See Item 8, *Financial Information — Legal Proceedings*, for a discussion of several important patent-related proceedings in which we are involved.

The extent of patent protection varies from country to country. In some of the countries in which we operate, patent protection may be significantly weaker than in the United States or the European Union. Piracy of patent-protected intellectual property has often occurred in recent years, particularly in some Asian countries. In addition, in an effort to control public health crises, some developing countries, such as South Africa and Brazil, have recently announced plans for substantial reductions in scope of patent protection for pharmaceutical products. In particular, these countries could facilitate competition within their markets from generic manufacturers who would otherwise be unable to introduce competing products for a number of years. Furthermore, in response to the recent bioterror attacks in the United States, the U.S. and Canadian governments contemplated compulsory licensing of our ciprofloxacin antibiotic — in effect, permission to generic manufacturers to market ciprofloxacin before the expiry of our patent rights. Although we reached agreements with the two governments intended to ensure adequate supplies of ciprofloxacin while preserving our existing patent rights, we cannot assure you that these or other governments would not impose compulsory licensing in future in response to

renewed or increased bioterror attacks. We do not currently expect any proposed patent law modifications to affect us materially. Nevertheless, if a country in which we sell a substantial volume of an important product were to effectively void our patent rights in that product, our revenue could suffer.

***Failure to compete successfully or integrate newly acquired businesses may reduce our operating profits***

Bayer operates in highly competitive industries. Actions of our competitors could reduce our profitability and market share. In some commodity areas (especially within our Plastics & Rubber, Polyurethanes, Coatings & Colorants and Chemicals segments), we compete primarily on the basis of price and reliability of product and supply. All of our segments, however, also compete in specialty markets on the basis of product differentiation, innovation, quality and price. Significant product innovations, technical advances or the intensification of price competition by competitors could harm our operating results.

From time to time we acquire all or a portion of an established business and combine it with our existing business units. Integration of existing and newly acquired businesses requires difficult decisions with respect to staffing levels, facility consolidation and resource allocation. We must also plan carefully to ensure that established product lines and brands retain or increase their market position. In October 2001, we announced the acquisition of Aventis CropScience from Aventis SA and Schering AG for €7.25 billion. This price consists of both cash that we will pay to Aventis and Schering and outstanding debt of Aventis CropScience that we will assume. This acquisition marks the single largest acquisition in our history, and the integration of Aventis CropScience with our Crop Protection segment will pose formidable management challenges. Any failure to combine these businesses successfully could harm our operating results.

***Failure to develop new products and production technologies may harm our competitive position***

Bayer's operating results significantly depend on the development of commercially viable new products and production technologies. We devote substantial resources to research and development. Because of the lengthy development process, technological challenges and intense competition, we cannot assure you that any of the products we are currently developing, or may begin to develop in the future, will become market-ready and achieve substantial commercial success. If we are unsuccessful in developing new products and production processes in the future, our competitive position and operating results will be harmed.

***Risks from the handling of hazardous materials could harm our operating results***

Bayer's operations are subject to the operating risks associated with pharmaceutical and chemical manufacturing, including the related storage and transportation of raw materials, products and wastes. These hazards include, among other things:

- pipeline and storage tank leaks and ruptures;
- explosions; and
- discharges or releases of toxic or hazardous substances.

These operating risks can cause personal injury, property damage and environmental contamination, and may result in the shutdown of affected facilities and the imposition of civil or criminal penalties. The occurrence of any of these events may significantly reduce the productivity and profitability of a particular manufacturing facility and harm our operating results.

Although we maintain property, business interruption and casualty insurance that we believe is in accordance with customary industry practices, we cannot assure you that this insurance will be adequate to cover fully all potential hazards incident to our business.

For more detailed information on environmental issues, see Item 4, *Business Overview — Governmental Regulation*.

***Environmental liabilities and compliance costs may have a significant negative effect on our operating results***

The environmental laws of various jurisdictions impose actual and potential obligations on Bayer to remediate contaminated sites. These obligations may relate to sites:

- that we currently own or operate,
- that we formerly owned or operated, or
- where waste from our operations was disposed.

These environmental remediation obligations could significantly reduce our operating results. In particular, our accruals for these obligations may be insufficient if the assumptions underlying these accruals prove incorrect or if we are held responsible for additional, currently undiscovered contamination. See Item 4, *Business Overview — Governmental Regulation*.

Furthermore, Bayer is or may become involved in claims, lawsuits and administrative proceedings relating to environmental matters. An adverse outcome in any of these might have a significant negative impact on our operating results.

Stricter environmental, safety and health laws and enforcement policies could result in substantial costs and liabilities to Bayer and could subject our handling, manufacture, use, reuse or disposal of substances or pollutants to more rigorous scrutiny than is currently the case. Consequently, compliance with these laws could result in significant capital expenditures as well as other costs and liabilities, thereby harming our business and operating results.

***Litigation and product liability claims could harm our operating results and cash flows***

Bayer AG or its subsidiaries have been named as defendants in various lawsuits. Companies like Bayer have historically been subject to large product liability claims, especially with respect to pharmaceutical and similar products. We are currently involved in a number of lawsuits that could involve substantial claims for damages. These include claims alleging product liability (as in the case of our cerivastatin anticholesterol products and our products formerly containing phenylpropanolamine) as well as claims alleging antitrust violations (as in the case of our ciprofloxacin and nifedepine pharmaceuticals). We are also involved in lawsuits to enforce our patent rights in the latter two products. If we are not successful in these various actions, it is possible that the ultimate liability or other unfavorable outcome could be material to our results of operations and cash flows. See Item 8, *Financial Information — Legal Proceedings*.

In cases where we believe it appropriate, we have established provisions to cover potential litigation-related costs. We may establish such provisions for additional cases, if we believe that developments in those proceedings make it appropriate to do so. We believe that these provisions (together with insurance proceeds in cases where our liability would be covered by insurance) would substantially cover judgements for damages against us in these cases. We cannot assure you, however, that our litigation provisions will be adequate or that we will fully recover claims under our insurance policies. Furthermore, if some of our key products lose their patent protection, we would expect our revenue from those products to decline as generic competitors enter the market. As a result, adverse decisions in the lawsuits in which we are involved could harm our results of operations or cash flows in any given year.

***Fluctuations in exchange rates may affect our financial results***

Bayer conducts a significant portion of its operations outside the euro zone. Fluctuations in currencies of countries outside the euro zone, especially the U.S. dollar, can materially affect our revenue as well as our operating results. For example, changes in currency exchange rates may affect:

- the relative prices at which we and our competitors sell products in the same market; and
- the cost of items we require for our operations.

Although these fluctuations can benefit us, they can also harm our results. From time to time, we may use financial instruments to hedge our exposure to foreign currency fluctuations. As of December 31, 2000, we had entered into forward foreign exchange contracts and currency swaps with a total notional value of €3.42 billion. See Item 11, *Quantitative and Qualitative Disclosures About Market Risk*.

## Item 4. Information on the Company

### HISTORY AND DEVELOPMENT OF THE COMPANY

Bayer Aktiengesellschaft, or Bayer AG, is a stock corporation (*Aktiengesellschaft*) organized under the laws of the Federal Republic of Germany. In this registration statement, “Bayer AG” refers solely to the ultimate parent company of the consolidated Bayer Group.

Bayer AG was incorporated in 1951 under the name “Farbenfabriken Bayer AG” for an indefinite term and adopted its present name in 1972. Bayer AG’s registered office (*Sitz*) and principal place of business are at the Bayerwerk, 51368 Leverkusen, Germany. Its telephone number is +49 (214) 30-1 and its home page on the World Wide Web is at [www.bayer.com](http://www.bayer.com). Reference to our website does not incorporate the information contained on the website into this registration statement.

Although Bayer AG was incorporated in 1951, it traces its roots to Friedr. Bayer & Co., an aniline dye works founded in Wuppertal, Germany in 1863 by Friedrich Bayer and Johann Friedrich Weskott. This company achieved a leading position in its industry, opening facilities and agencies in the United States and in other European countries. Friedr. Bayer & Co. made numerous discoveries, most notably of aspirin (acetylsalicylic acid), perhaps the best-known and most widely used medication in world history.

In 1925 the original Bayer company merged with five other leading German chemical and pharmaceutical companies, including the ancestors of today’s Aventis and BASF, to form I.G. Farbenindustries AG. After the second World War, the Allied High Commission, formed by the United States, the United Kingdom, France and the former Soviet Union to administer occupied Germany, seized the assets of I.G. Farben. Pursuant to Law No. 35 of the Allied High Commission, some of these assets were later distributed among 12 newly formed companies, including the present Bayer AG.

After World War I, the U.S. government expropriated the U.S. rights to the Bayer name and trademarks as “enemy property”. In 1986, Bayer reacquired the U.S. rights to the Bayer trademark with respect to products for the manufacturing industry and, in 1994, reacquired full U.S. rights to its name and trademarks, including the “Bayer cross”.

Friedr. Bayer & Co. established operations in the United States as early as 1870. In 1992, Bayer AG’s U.S. subsidiaries Mobay Corporation, Miles Inc. and Agfa Corporation merged with the management holding company Bayer USA Inc. to form a new operating company, Miles Inc. In April 1995, Miles Inc. changed its name to the current form, Bayer Corporation.

Since 1998, we have incurred capital expenditures as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(millions of euros)		
Pharmaceuticals . . . . .	553	525	366
Consumer Care & Diagnostics . . . . .	192	205	123
Crop Protection . . . . .	233	184	102
Animal Health . . . . .	50	33	42
Plastics & Rubber . . . . .	652	575	677
Polyurethanes, Coatings & Colorants . . . . .	359	446	529
Chemicals . . . . .	470	521	512

In 1998 we spent €1.4 billion on acquisitions, mainly for Chiron Diagnostics. In 1999 we spent €0.4 billion on acquisitions. Major projects in 1999 included the acquisition of the plastic sheet businesses of the chemical companies DSM-Axxis N.V. and Sheffield Plastics; the purchase of the business and assets of Elastochem Inc.; and an 11.3 percent equity investment in LION Bioscience AG. In 2000, we spent a total of €4.2 billion on acquisition activity, mainly in further aligning our polymers and chemicals activities toward specialties through the acquisitions of Lyondell Chemical Company’s polyols business, Sybron, CSM Holding, Inc. and Cytec’s sizing and strength paper chemicals business. In the life science area we strengthened our crop protection business by acquiring the Flint® strobilurin product line.

In October 2001, we entered into an agreement to acquire Aventis CropScience from Aventis and Schering. The consummation of this transaction is conditioned upon antitrust and competition reviews in the United States and the European Union. Assuming that we receive the requisite regulatory approvals, we expect to complete this acquisition by the end of the first quarter of 2002. See below, — *Crop Protection — Segment Strategy* and “Aventis CropScience Acquisition” in Item 5, *Operating and Financial Review and Prospects — Recent Developments and Trend Information — Outlook*.

In 1998 our major divestments included the sale of our citric acid business, the sale of Agfa’s copying systems business unit, the placement of our titanium dioxide business into a joint venture with Kerr-McGee Chemical LLC, the combination of the silicones activities of Bayer and GE Plastics into another joint venture and the sale of our zeolites business. Major divestments in 1999 included our flotation of 70 percent of the former Agfa business segment. In 2000, the addition of a new partner in the DyStar joint venture reduced our capital share in that joint venture to 35 percent; since then we consider DyStar a non-core business and classify it under “Discontinuing Operations”. We continued to streamline our portfolio through 2000, divesting our animal health biologicals, acrylic fibers and solar-grade silicon businesses, Troponwerke GmbH, and Basics, our generic pharmaceuticals business in Germany. We divested our investments in Myriad Genetics Inc. and in Schein Pharmaceuticals, a U.S. generics business. In the first half of 2001, we also sold our acrylic fiber and spandex yarn product lines, a part of our Fibers business group, now classified under “Discontinuing Operations”. In May 2001, we sold our interest in the EC Erdölchemie joint venture, which we had previously classified under “Discontinuing Operations”. In December 2001, we announced plans to divest Haarmann & Reimer from our business group, as we no longer consider it to be part of the Chemicals segment’s core activities.

## BUSINESS OVERVIEW

We are a global company offering a wide range of products, including ethical pharmaceuticals, diagnostics and other health-care products; agricultural products; polymers; and chemicals.

Bayer comprises the parent company, Bayer AG of Leverkusen, Germany, and over 250 consolidated subsidiaries. We are organized into seven business segments — Pharmaceuticals; Consumer Care & Diagnostics; Crop Protection; Animal Health; Plastics & Rubber; Polyurethanes, Coatings & Colorants; and Chemicals.

In December 2001, the Supervisory Board approved plans to transform Bayer AG into a management holding company structure. We expect to implement this plan, which must still be approved by our shareholders, with effect from January 1, 2003. This holding company structure, which evolves out of our historical “four pillar” strategy, calls for the establishment of four new, independently operating subsidiaries. Each of these will comprise one or more current business segments. The new subsidiaries will be:

- *Health Care* (comprising the current Pharmaceuticals, Consumer Care & Diagnostics and Animal Health segments);
- *Crop Protection* (consisting of our current Crop Protection segment);
- *Polymers* (comprising the current Plastics & Rubber and Polyurethanes, Coatings & Colorants segments); and
- *Chemicals* (consisting of our current Chemicals segment).

Under the new structure, the Management Board of Bayer AG would continue to determine the overall strategy of the Bayer Group, control resource allocation, and nominate the management of the subsidiary Group companies. These new entities will be wholly owned by Bayer AG, although we may consider strategic partnerships, particularly for our Health Care businesses. If we do form any strategic partnerships, we would expect to maintain both majority ownership and operational control.

For the year ended December 31, 2000, Bayer reported total sales of €31.0 billion, an operating result of €3.3 billion, and net income of €1.8 billion. Sales from continuing operations amounted to €29.0 billion. Europe accounted for 47.2 percent of these sales in 2000. Our activities in North America accounted for 32.4 percent of sales. The Asia/Pacific region contributed 12.7 percent to sales, while Latin America, Africa and the Middle East accounted for 7.7 percent. As of December 31, 2000, we employed 122,100 people worldwide, including employees in our discontinuing operations.

By continuing to align our portfolio strategically in favor of the more profitable life sciences, we aim to increase Bayer’s overall operating margin to above 15 percent. We plan to achieve this shift in our portfolio by maintaining our existing strategy of selective life science acquisitions like those of Chiron, Gustafson and Flint, the expected acquisition of Aventis CropScience, and through strong organic growth. In our Health Care businesses we are aiming to win market share and grow profitability without stifling our growth potential at the same time.

We will strive to continue expanding the strong market position of our Polymers businesses. After integrating Lyondell’s polyol business, our main focus will be on expansion in Asia, where we see opportunities for above-average growth, and on developing new applications for our products. In the Chemicals segment, we plan to focus on further improving our margins. Our plan for achieving this goal calls for the further streamlining of our portfolio and the expansion of our specialties, including by means of selected acquisitions.

We aim to avoid accidents, to prevent our activities from harming human and animal health and to tailor our product range to the tenets of sustainability. Bayer’s long-term strategy and activities are guided by the principles of *sustainable development*. Our objective is to meet the economic, ecological and social needs of today’s society without compromising the ability of future generations to meet their own needs. We contribute to sustainable development by participating in the worldwide Responsible Care® initiative developed by companies in the global chemical industry.

## PHARMACEUTICALS

### Overview

Our Pharmaceuticals segment focuses on the development and marketing of ethical pharmaceuticals, or medications requiring a physician's prescription and sold under a specific brand name. The following table shows the segment's performance for the last three years.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
External net sales . . . . .	6,140	5,003	4,340
Percentage of total sales (continuing operations) . . . . .	21.4	21.2	20.1
Intersegment sales . . . . .	39	51	34
Operating result before exceptional items . . . . .	1,165	922	751
Percentage of total operating result (continuing operations) . . . . .	32.8	29.5	23.9

The following table shows our revenue during the past three years from the products that we regard as material to the revenue of the segment as a whole.

<u>Product</u>	<u>2000</u>		<u>1999</u>		<u>1998</u>	
	<u>Revenue (euros in millions)</u>	<u>Percentage of segment revenue</u>	<u>Revenue (euros in millions)</u>	<u>Percentage of segment revenue</u>	<u>Revenue (euros in millions)</u>	<u>Percentage of segment revenue</u>
Cipro . . . . .	1,785	29.1	1,519	30.4	1,295	29.8
Adalat . . . . .	1,155	18.8	1,021	20.4	967	22.3

### Segment Strategy

We plan to hold all our Health Care businesses (including Pharmaceuticals, Consumer Care & Diagnostics and Animal Health) as a separate wholly owned direct subsidiary of Bayer AG. See — *Business Overview*. To better focus our management of the Pharmaceuticals segment, we also plan to organize it into two business groups: Ethical Products and Biological Products.

Our strategic priorities for the Pharmaceuticals segment are improving profitability and gaining market share. At the end of 1998, we began an extensive restructuring program in the segment that includes divesting activities we no longer regard as strategic core businesses. By means of the various elements of this restructuring program, we aim by 2003 to reduce costs in the Pharmaceuticals segment by as much as €415 million compared with their level in 1998. Following the withdrawal of our Lipobay/Baycol cerivastatin products, we are currently considering further restructuring of our Pharmaceuticals business.

Life cycle management, enabling us to extend the commercial success of established products, is a strategic priority. At the same time, we will provide the necessary marketing support for new products, with the goal of making every product launch a success. Through international cooperations with numerous leading biotechnology companies we seek to ensure a leading position in all key technologies as well as enhanced research productivity.

In 2000, the Pharmaceuticals segment spent €553 million on capital expenditures. We recently expanded our pharmaceutical research center at West Haven, Connecticut. We aim to strengthen our biologicals business by increasing our production capacity.

We allocate the largest portion of our research and development budget to the Pharmaceuticals segment. Our activities in this field focus on:

- innovative drug products for the treatment of conditions for which current therapeutic options are either inadequate or unavailable, such as arteriosclerosis, diabetes and cancer; and
- alliances with leading biotech firms to expand our high-tech research platform.

## Products

The following table lists the major products of the Pharmaceuticals segment.

<u>Brand name</u>	<u>Active ingredient</u>	<u>Indication</u>
<b>Antiinfectives</b>		
Cipro .....	Ciprofloxacin	Bacterial infection
Avelox .....	Moxifloxacin	Bacterial infection
<b>Cardiovasculars</b>		
Adalat .....	Nifedipine	Angina, hypertension
Trasylol .....	Aprotinin	Perioperative blood loss
<b>Biological products</b>		
Kogenate .....	Factor VIII	Hemophilia
Gamimune .....	Human immune globulin	Immunodeficiency
Prolastin .....	$\alpha$ 1-antitrypsin	Emphysema
<b>Central nervous system</b>		
Nimotop .....	Nimodipine	Subarachnoid hemorrhage/CNS disorders
<b>Metabolic diseases</b>		
Precose/Glucobay .....	Acarbose	Type 2 diabetes mellitus

Ciprofloxacin, marketed under the trademark *Cipro*<sup>®</sup> in the United States and *Ciproxin*<sup>®</sup>, *Ciproxine*<sup>®</sup>, *Ciprobay*<sup>®</sup> and *Ciflox*<sup>®</sup> in other countries, is a broad-spectrum antimicrobial agent. It is the leading representative of the fluoroquinolone class. We launched Cipro in 1986 and have since marketed it in more than 100 countries.

Cipro's main uses are in the treatment of urinary tract infections and in severe hospital infections, where it competes with other fluoroquinolones as well as with antibiotics of other classes. Cipro is our leading pharmaceutical product and is among the top 20 leading pharmaceutical brands worldwide (source: International Medical Statistics MAT III, 2000). Physicians have used Cipro in over 300 million patient treatments; it has been the subject of more than 35,000 scientific papers. We believe that Cipro's success and continued growth are the result of its proven efficacy and excellent safety record.

Bayer's continuous and effective life cycle management program reflects our strong commitment to Cipro. We are currently conducting clinical development of a single-daily-dose formulation intended to further improve dosing convenience and patient compliance.

*Avelox*<sup>®</sup> (moxifloxacin), marketed in Germany under the name *Avalox*<sup>®</sup>, is an antibiotic used to treat common bacterial respiratory tract infections. Launched in Germany and the United States in 1999, Avelox has since obtained approvals in most major markets (except Japan, where we expect to obtain approval in 2003). We currently market Avelox in 61 countries. Avelox is indicated for the treatment of community-acquired pneumonia, acute exacerbations of chronic bronchitis and acute sinusitis. Avelox's launch was the most successful of any antibiotic in Germany (source: IMS). It has established itself as one of the leading respiratory antibiotics in Germany, and we expect it to develop into one of the leading products in its class in other countries as well. In several major markets, we have entered co-promotion/co-marketing programs to realize the full potential of this product. Avelox complements our other leading antibiotic, Cipro, which is a leading product for the treatment of urinary tract infections and severe hospital-acquired infections.

In November 2000, we applied for regulatory approval in Europe and the United States for the use of *Avelox i.v.*<sup>®</sup> in treating community-acquired pneumonia in the hospital setting. In November 2001, the U.S. Food and Drug Administration approved *Avelox i.v.* We expect to launch this product in the United States and (subject to regulatory approval) in Germany by the end of the first quarter of 2002.

*Adalat*<sup>®</sup> is the brand name for nifedipine, the first representative of the dihydropyridine class of calcium antagonists. Calcium plays an important role in the body's regulation of blood pressure and the supply of blood to the heart tissues. By doing so, it reduces blood pressure and improves blood supply to heart tissue. Adalat is an important cornerstone in Bayer's cardiovascular risk management portfolio. We launched Adalat in 1975; it is currently available worldwide.

Clinical trials have shown that Adalat can:

- reduce the risk of illness and death from heart attack and stroke in patients with high blood pressure and other risk factors, as well as improving symptoms of atherosclerosis, or hardening of the arteries, in these patients; and
- improve endothelial function, which is essential for the proper balance of blood vessel constriction and dilation. Endothelial dysfunction, present in many cardio-vascular diseases, increases constriction and can contribute to the development of atherosclerosis.

Adalat has faced strong competition from other calcium antagonists for a number of years. More recently, generic once-daily nifedipines as well as such other classes of drugs as beta-blockers, diuretics, ACE inhibitors and A II antagonists have begun to compete with Adalat.

The antihypertensive market totaled approximately €33 billion in 2000; we expect this market to grow to more than €42 billion by 2005. Of this total, calcium antagonists represented a market of approximately €10.8 billion in 2000. We expect this portion of the total market to decrease to approximately €10.1 billion by 2005 as the result of increased pressure from generic products.

*Kogenate® FS* (*Kogenate® Bayer* in the EU) is a genetically engineered recombinant version of Factor VIII (fVIII), a protein essential to blood clotting. The human body normally produces an adequate supply of fVIII naturally. Patients with hemophilia A, a genetic disorder that affects males almost exclusively, cannot produce sufficient fVIII, and their blood therefore cannot clot properly. If left untreated, hemophilia can trigger bleeding into organs and joints, causing severe pain, disabilities and even death. Physicians have successfully treated hemophilia for a number of years by administering fVIII. All fVIII for medical use originally derived from the plasma of blood donors; plasma-derived fVIII is still in use. *Kogenate FS*, however, is a recombinant fVIII, synthesized from the protein's basic genetic components. Because recombinant products do not derive from human donors, the risk that their users will inadvertently contract infection with HIV, hepatitis or other viruses occasionally present in plasma-derived products is greatly reduced. We expect that the fVIII market will grow at a compounded rate of 13-15 percent over the next three to five years, driven by:

- single-digit growth in the patient population,
- more aggressive prophylactic (preventive) dosing.

Along with Bayer there are three major multinational companies that market recombinant fVIII products — Baxter, Aventis Behring and Genetics Institute (a division of American Home Products). We supply recombinant fVIII to Aventis Behring, which markets it under the brand name *Helixate FS®*. *Kogenate FS* and *Helixate FS* are significant brand names in their market segment. We produce recombinant fVIII under licenses from Genentech and another licensor, which together give us worldwide production rights.

*Glucobay®*, *Precose®* (in the United States) and *Prandase®* (in Canada) are our trade names for acarbose, an oral antidiabetic product that delays carbohydrate digestion. *Glucobay* improves metabolic control in diabetics alone or in combination with other antidiabetic drugs.

*Glucobay* was approved in Germany in 1990 as the first drug of its class. The drug received approvals in the United States in 1995 and in Japan in 1993; it is now available in more than 95 countries worldwide. Although *Glucobay* continues to hold a strong position in Europe and Japan, it faces increasing competition from GlaxoSmithKline and Takeda/Eli Lilly, which have entered the market for oral antidiabetic products based on new therapeutic principles.

*Gamimune®/Polyglobin®* is a plasma-derived concentrate of human antibodies (*Intra-Venous Immunoglobulin G*, or *IVIg*) registered in 33 countries worldwide, including the United States, Canada, Germany and Japan. Physicians use it to treat immune system deficiencies as well as for the treatment of some autoimmune disorders, in which the immune system mistakenly attacks the body's own tissues. We position *Gamimune/Polyglobin* as a high-end, convenient product, contrasting its high concentration and ready-to-use liquid formulation against the lower-concentration powdered products that currently make up more than 60 percent of the worldwide market. According to both the Market Research Bureau and our own internal studies, this brand has been the leader in world sales since 1999. Physicians typically use this drug to treat patients with insufficient or impaired antibody protection caused by such conditions as:

- Primary Immunodeficiency Diseases,
- Secondary Immunodeficiency Diseases,
- Pediatric HIV (anti-infection prophylaxis), and
- Bone marrow transplantation.

*IVIg* is currently approved for use in the therapy of such autoimmune diseases as *Idiopathic Thrombocytopenic Purpura* and *Kawasaki's Disease*, and there is also increasing evidence that *IVIg* will prove a strong therapeutic option for other autoimmune diseases. We believe that the most promising area is the treatment of neurological diseases like *Myasthenia Gravis* and *Multiple Sclerosis (MS)*. Canada and Germany recently granted the first approvals for the use of *Gamimune/Polyglobin* in treating *Guillain-Barré syndrome*, a neurological condition, and we are currently conducting studies in an effort to obtain approval of the drug for the treatment of *MS*.

There are currently no recombinant substitutes available for *IVIg*, and we do not expect any such substitutes to become available in the foreseeable future. We therefore expect that demand for this drug will continue to exceed supply. We anticipate launching our next-generation *IVIg* product in the United States in 2002. In addition to further improvement in product performance, we expect our new, patented purification process to enable us to make significantly greater amounts of this scarce product available.

*Prolastin®* ( $\alpha$ 1-proteinase inhibitor human) is a plasma-derived product approved for use in the United States, Canada and several European countries. It is used for chronic therapy in individuals with emphysema related to congenital  $\alpha$ 1-antitrypsin (*AAT*) deficiency. *AAT* deficiency is an inherited disorder that causes insufficient *AAT* in the body. This deficiency can cause serious lung disease and, ultimately, emphysema.

We recently entered into a collaboration with *PPL Therapeutics* to develop a recombinant *AAT* from the milk of genetically modified sheep. In addition, *Bayer* and *PPL Therapeutics* are developing an aerosolized formulation that patients take by inhalation. We expect aerosol delivery to make delivery of the drug more convenient and reduce the amount needed for treatment. In addition to its indication for genetic deficiency of *AAT*, we are investigating whether aerosolized recombinant *AAT* treatment may benefit patients suffering from cystic fibrosis. *PPL Therapeutics* has obtained orphan drug designation for the new product for both these indications.

We launched *Nimotop®* (nimodipine) globally in the mid-1980s. A member of the dihydropyridine class of calcium antagonists developed by *Bayer* researchers, *Nimotop* improves the stability and function of nerve cells following certain types of hemorrhage in the brain by inhibiting calcium influx into the cells. *Nimotop* is the only product approved for the treatment of aneurysmatic sub-arachnoid hemorrhage, a serious condition involving bleeding in the brain beneath its outer protective membrane following the rupture of a blood vessel.

We derive our *Plasbumin®* and *Plasmanate®* fluid management products from fraction V of human plasma. *Plasbumin* is a highly purified albumin solution; *Plasmanate* contains albumin as well as alpha and beta globulins. These products draw fluid from body tissues into the bloodstream, thereby helping to stabilize blood pressure and circulation in patients who have lost large amounts of blood through trauma, disease or surgery. Health care professionals use our fraction V products primarily in treating shock victims.

*Trasylol*<sup>®</sup> is a natural proteinase inhibitor obtained from bovine lung tissue. Used prophylactically, it reduces blood loss during coronary bypass surgery, reducing the patient's need for blood transfusions. We supply *Trasylol* as a colorless, sterile isotonic solution for intravenous administration.

#### *Marketing withdrawal of Cerivastatin products*

*Baycol*<sup>®</sup>/*Lipobay*<sup>®</sup> (cerivastatin) is a statin, one of a class of medications used to lower elevated blood levels of cholesterol and other lipids, or fatty substances. We launched cerivastatin in its original dosages of 0.1 mg, 0.2 mg and 0.3 mg in 1997. We later obtained regulatory marketing approval for higher dosages, up to 0.8 mg.

Statins are powerful medications that can reduce the risk of coronary heart disease. However, they can also cause significant side effects, including rhabdomyolysis. This is a serious condition which, in its most severe form, can lead to life-threatening kidney failure.

Rhabdomyolysis has been reported more frequently in patients taking cerivastatin than other statins. This was particularly true in patients taking cerivastatin in combination with gemfibrozil, another lipid-lowering medication, and in patients taking cerivastatin in the 0.8 mg dosage. We are currently aware of approximately one hundred patients diagnosed with rhabdomyolysis while taking cerivastatin who have died, as well as approximately 1,600 patients assessed with non-fatal cases of rhabdomyolysis.

We had provided prescription information that warned of the risk of rhabdomyolysis and contained strong warnings and a contraindication against the combination of cerivastatin and gemfibrozil. However, we continued to receive reports of this condition in patients who had been taking cerivastatin. Accordingly, we voluntarily ceased marketing cerivastatin in August 2001 and do not intend to reintroduce the drug.

#### *Microbial resistance to antibiotics*

The development by microbes of resistance to antibiotics, especially to fluoroquinolone and other quinolone-class products, has been a cause of concern for the medical and pharmaceutical communities in recent years. Nonetheless, a number of studies have shown that resistance has not materially impaired the effectiveness of our two key quinolone products, ciprofloxacin and moxifloxacin, against their respective primary target microbes. Ciprofloxacin remains effective against over 90 percent of the key bacteria causing urinary tract infections. Similarly, moxifloxacin has shown over 99 percent effectiveness against *S. pneumoniae* and *H. influenzae*.

We encourage health care professionals to adopt standards of appropriate antibiotic use to avoid facilitating the development of resistance. Inappropriate use of antibiotics is one factor that facilitates the development of microbial resistance. We have initiated the LIBRAINITIATIVE.COM project to provide physicians and patients with information on how they can use antibiotics appropriately, which should contribute to these drugs' continued therapeutic effectiveness.

Resistance development is, however, a natural process whose outcome we cannot predict, and it is almost certainly impossible to eliminate it altogether. Emergent ciprofloxacin or moxifloxacin resistance could become a problem on an isolated, individual-patient basis. Nevertheless, we do not believe that microbial resistance will impair the general clinical usefulness of these two quinolones in large patient populations in the foreseeable future.

#### *Ciprofloxacin: increased demand and governmental agreements following bioterror attacks*

Cipro (ciprofloxacin) has been approved for the treatment of anthrax since 2000 in the United States and since November 2001 in Germany. Set off by the impending higher demand for Cipro following anthrax bioterror attacks in the United States, we have increased our global production of this antibiotic to provide the quantities required. In order to ensure that sufficient antibiotics will be available from U.S. governmental stockpiles, and in addition to donating four million Cipro tablets, Bayer Corporation has entered into an agreement with the U.S. government to supply up to 300 million Cipro tablets, the first 100 million tablets to be delivered by the end of 2001 at a price of \$0.95 per tablet. Further orders by the U.S. government for 2002 would be optional and at a price of \$0.85 per tablet for the second 100 million tablets and \$0.75 per tablet for the third 100 million tablets. In Canada, Bayer Inc. — in addition to donating 200,000 Cipro tablets — has agreed to supply one million tablets

of Cipro within 48 hours upon request from the Canadian government and has assured that it can meet the current and future demand of Cipro in Canada. We are also currently involved in discussions with the Israeli authorities about additional supplies of Cipro.

### ***Markets and Distribution***

The Pharmaceuticals segment's principal markets are North America, Western Europe and Asia (especially Japan). The segment's sales by region and total, for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe .....	1,698	1,571	1,518
North America .....	2,812	2,135	1,735
Asia/Pacific .....	1,159	883	689
Latin America/Africa/Middle East .....	<u>471</u>	<u>414</u>	<u>398</u>
Total .....	<u>6,140</u>	<u>5,003</u>	<u>4,340</u>

The following table sets forth the segment's sales for the last three years, broken down by key products.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Cipro/Ciprobay .....	1,785	1,519	1,295
Adalat .....	1,155	1,021	967
Baycol/Lipobay .....	636	350	114
Kogenate .....	491	377	386
Gamimune N .....	350	287	186
Glucobay .....	311	277	246
Prolastin .....	140	74	69
Avelox .....	132	12	—
Nimotop .....	129	127	128
Fraction V products .....	118	109	101
Trasylol .....	<u>104</u>	<u>74</u>	<u>65</u>
<i>Sum of top eleven products</i> .....	5,351	4,227	3,557
<i>All other products</i> .....	<u>789</u>	<u>776</u>	<u>783</u>
Total .....	<u>6,140</u>	<u>5,003</u>	<u>4,340</u>

Among the factors that have affected, or may affect, our Pharmaceuticals business are:

- in Europe and North America, increasingly competitive price pressures as managed care groups, health care institutions, government agencies and other purchaser groups seek price discounts and rebates for pharmaceutical products;
- the impact of competing generic products entering the European and North American markets;
- in Europe, currency effects resulting from transactions in countries outside the euro zone;
- competition from large pharmaceutical companies in the North America market with substantial resources for research, product development and promotion;
- in Japan, regulation of pharmaceutical prices and mandatory price reductions stipulated by the Japanese Ministry of Health and Welfare;
- in Japan, extensive periods of time historically required for the development and the approval of new drug applications by the Japanese Ministry of Health and Welfare.

We currently produce the active ingredients for our ethical pharmaceutical products almost exclusively at the Bayer facilities in Wuppertal and Leverkusen, Germany. We obtain the raw materials for these ingredients partly from Bayer's Chemicals business segment and partly from third parties in Europe and Asia. Strategic reserves of our products as well as the planned long-term buildup of our production capacity help us ensure an unbroken supply chain.

We produce biological raw materials and, under a license from Genentech, recombinant fVIII at our facilities in Clayton, North Carolina and Berkeley, California in the United States. We obtain raw plasma as well as some intermediates and supplies for plasma-derived products from third-party U.S. suppliers. The availability of raw plasma depends on the available donor base, purchases from other fractionators, regulatory procedures and ongoing consolidation with larger collectors. In late 2000 we received reports from the U.S. Food and Drug Administration following FDA inspections of our Clayton and Berkeley sites. The FDA reports contained observations on production issues, particularly with regard to data integrity, management and record-keeping as well as technical production issues. In responding to the reports, we conducted follow-up investigations that identified certain technical problems affecting the manufacture of recombinant fVIII products. In July 2001, after receiving our response, the FDA issued a so-called warning letter, identifying items on which it requires further action. Although we cannot currently state when we will be able to return to full production capacity, we are taking action to rectify these issues. As a result of these issues, our total production of recombinant fVIII products for 2001 was significantly less than in 2000, leading to periods of shortage in these products on the market.

Bayer facilities throughout the world compound our raw materials and package the finished product for shipment. Our main pharmaceutical production facilities are in Leverkusen, Germany; Garbagnate, Italy; Berkeley, California and West Haven, Connecticut; and Shiga, Japan. We also operate regional production facilities in Mexico, Brazil, China and Indonesia. We use contract manufacturers in some countries and for certain special technological processes.

We obtain additional ingredients and packaging materials from diverse suppliers on a worldwide basis. As a rule, we approve several suppliers for each required material. At the same time, we are increasingly entering into global contracts in order to secure advantageous pricing. Where a required material is available from only one supplier, our policy is to amass a strategic reserve, typically equal to a 90-day supply, while mounting an intensive search for potential alternative suppliers.

We generally distribute our products through wholesalers, pharmacies and hospitals as well as, to a certain extent, directly to patients. Where appropriate, we actively seek to supplement the efforts of our sales force through co-promotion and co-marketing arrangements. In November 2001, we entered into a co-promotion agreement with GlaxoSmithKline for our erectile-dysfunction medication vardenafil, currently in late-stage development. We plan to introduce vardenafil to the market in the near to medium term, subject to obtaining regulatory approvals following the U.S. Food and Drug Administration's assessment. We expect the results of this assessment in the second half of 2002.

We encounter competition in all of our geographical markets from large national and international competitors. In the antibacterial products market, our main competitors are GlaxoSmithKline, Pfizer and Abbott Laboratories. Pfizer, Merck & Co. and AstraZeneca dominate the area of hypertension and coronary heart disease therapy. The market leader for oral antidiabetics is Bristol-Myers Squibb. Baxter, Bayer and Aventis are the leaders in the blood coagulation market. Together with Novartis, these three companies also play the major role in the markets for proteinase inhibitors and immunoglobulins.

Important competitive factors include:

- product characteristics and dependability (including safety, efficacy, range of indications, dosage form and convenience);
- product price and demonstrated cost-effectiveness;
- customer service;
- sales force size and expertise;

- advertising and promotion;
- production and manufacturing costs; and
- research and development of new products and processes.

### ***Research and Development***

Within the Pharmaceuticals segment, we focus our research and development activities on therapeutic areas in which we believe there is a high degree of inadequately met medical need and where we expect our research and development investment to yield high productivity. Our established areas of core competency are bacterial infections as well as cardiovascular diseases and related disorders such as lipid abnormalities and diabetes. In order to increase the breadth and depth of our portfolio we are expanding into selected additional areas: cancer, respiratory diseases (chronic obstructive pulmonary disease — COPD — and asthma); neurological disorders (stroke, traumatic brain injury, chronic pain), neurodegenerative disorders (Parkinson’s disease and Alzheimer’s disease), benign prostate hyperplasia/urinary incontinence and viral infections (with a particular focus on HIV, cytomegalovirus and hepatitis), as well as such promising newly evolving markets as the treatment of erectile dysfunction.

In recent years we have supplemented our internal research activities, especially in the pharmaceuticals field, through research cooperations with third parties. As a result of these cooperations, we have significantly increased the number of new development candidates that we identify each year, while reducing our research costs per candidate. See Item 4, *Information on the Company — Research and Development — Research Cooperations*.

The segment’s primary research and development facilities are located in Wuppertal, Germany; West Haven, Connecticut; Berkeley, California; Kyoto, Japan; and Stoke Court, United Kingdom.

### ***Life cycle management***

We have adopted life cycle management measures to optimize our return on investment for current major drugs. Life cycle management influences our planning long before patents expire. These measures have contributed to the maintenance of our leading position in antibacterials (Ciprofloxacin) as well as in the cardiovascular area (Adalat). Adalat is a prime example of successful life cycle management: the drug generated €1.16 billion in sales 15 years after the patent protection for nifedipine, its key component, expired.

Major current life cycle management projects include:

- development of single-daily-dose and pediatric dosages of Ciprofloxacin; and
- development of an intravenous formulation of the quinolone antibiotic Avelox. We submitted this formulation for registration in major markets in November 2000; it was approved in the United States in November 2001.

### ***New products***

We currently have four projects in late stages of clinical development. In September 2001, we submitted our vardenafil product for the treatment of erectile dysfunction to the FDA for approval. If we receive FDA approval, we would expect to launch vardenafil in the United States during the second half of 2002. Depending on positive Phase II/III clinical trial results, we expect to launch the remaining three products in the years 2003-2006. These products are:

<u>Product/Brand name</u>	<u>Indication</u>	<u>Status</u>
Repinotan . . . . .	Acute ischemic stroke and TBI	Phase III
Faropenem . . . . .	Bacterial infections	Phase III
PDE4 inhibitor . . . . .	COPD	Phase II

Bayer AG licenses Faropenem from Suntory Limited on an exclusive basis outside Japan and on a semi-exclusive basis in Japan.

## CONSUMER CARE & DIAGNOSTICS

### Overview

Our Consumer Care & Diagnostics segment comprises the Consumer Care and Diagnostics business groups.

The following table shows the segment's performance for the last three years.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
External net sales . . . . .	3,888	3,364	2,688
Percentage of total sales (continuing operations) . . . . .	13.6	14.2	12.5
Intersegment sales . . . . .	—	1	1
Operating result before exceptional items . . . . .	311	173	240
Percentage of total operating result (continuing operations) . . . . .	8.7	5.5	7.6

### Segment Strategy

We plan to incorporate all our Health Care businesses (including, Consumer Care & Diagnostics Pharmaceuticals and Animal Health) through a wholly owned direct subsidiary of Bayer AG. See — *Business Overview*.

Our strategic priorities for the Consumer Care & Diagnostics segment are improving profitability and gaining market share. In the Consumer Care business group, our goal is to consolidate production site targeting to realize cumulative savings of €100 million over five years. In Diagnostics we concluded the integration of Chiron Diagnostics' activities in 2000; we are aiming to realize the synergy potential of €125 million savings annually by 2001.

Our research and development activities in this segment focus on:

- the optimization and extension of the indications of over-the-counter medicines such as Aspirin; and
- the development of efficient and cost-effective tests and systems for medical diagnostics.

### Consumer Care

#### Overview

Our Consumer Care business group develops and markets over-the-counter (OTC) medications (analgesics, cough and cold, dermatological and gastrointestinal remedies), vitamin and nutritional supplements and insecticides.

#### Products

The following table lists the major products of the Consumer Care business group.

<u>Brand name</u>	<u>Active ingredient</u>	<u>Principal application</u>
<i>Analgesics</i>		
Aspirin . . . . .	Acetylsalicylic acid	Pain relief; heart attack prevention
Aspirin + C . . . . .	Acetylsalicylic acid, Vitamin C	Relief of cold symptoms
Aleve . . . . .	Naproxen sodium	Pain relief; fever reduction
Midol . . . . .	Ibuprofen, Acetaminophen, Pamabrom, Pyrilamine Maleate	Pain relief

<u>Brand name</u>	<u>Active ingredient</u>	<u>Principal application</u>
<i>Cough/cold</i>		
Alka-Seltzer Plus . . . . .	Chlorpheniramine maleate, Dextromethorphan hydrobromide, Doxylamine succinate, Phenylephrine hydrochloride, Acetaminophen	Relief of cold and flu symptoms
Tabcin . . . . .	Acetylsalicylic acid, Chlorpheniramine maleate, Phenylephrin	Relief of cold and flu symptoms
Aleve Cold & Sinus . . . . .	Naproxen sodium, Pseudoephedrine hydrochloride	Pain relief/decongestant
<i>Dermatologicals</i>		
Canesten . . . . .	Clotrimazole, Bifonazole, Hydrocortisone	Vaginal yeast infection treatment, treatment of athlete's foot and other dermatological indications
Mycelex . . . . .	Clotrimazole, Butoconazole	Vaginal yeast infection treatment
Rid . . . . .	Pyrethrum extract, Piperonyl butoxide	Head lice treatment
<i>Gastrointestinals</i>		
Alka-Seltzer . . . . .	Acetylsalicylic acid, Sodium bicarbonate, Citric Acid, Simethicone, Calcium carbonate	Relief of heartburn, acid indigestion, sour stomach, with pain relief
Phillips' Milk of Magnesia . . . . .	Magnesium hydroxide	Constipation relief
Talcid . . . . .	Hydrotalcite	Control of gastro-intestinal acid
<i>Nutritionals</i>		
One-A-Day . . . . .	Vitamins A, C, D, E, K, B6, B12, Thiamin, Riboflavin, Niacin, Folic Acid, Pantothenic Acid, Biotin, Calcium, Iron, Zinc, Iodine, Magnesium, Selenium, Copper, Manganese, Chromium, Chloride, Molybdenum, Potassium, Phosphorus	Dietary supplement
Flintstones®, Bugs Bunny® and Scooby-Doo® Chewable Children's Vitamins . . . . .	Vitamins A, C, D, E, B6, B12, Thiamin, Riboflavin, Niacin, Folate, Iron, Pantothenic Acid, Calcium, Phosphorus, Iodine, Magnesium, Zinc, Copper	Dietary supplement for children
<i>Household</i>		
Baygon . . . . .	Bayothrin, Propoxur, Cyfluthrin, Phoxim	Insecticide
Autan . . . . .	Diethyltoluamid, Bayrepel	Insect repellent

*Analgesics*

The analgesics market comprises pain relief products both in oral form (for example, pills and tablets) and for topical use (for example, creams and salves). We estimate the total market to be €10.4 billion. We concentrate primarily on the oral products segment; we expect this segment to grow at approximately 2 percent per year over the next five years. Our main competitors are Johnson & Johnson (Tylenol, Motrin), GlaxoSmithKline (Panadol), Bristol Myers Squibb (Efferalgan, Bufferin, Excedrin) and American Home Products (Advil). Our OTC products

also face competition from prescription drugs, for example from such next-generation pain relievers as cyclooxygenase (COX-II) inhibitors.

*Aspirin*<sup>®</sup> (*Bayer*<sup>®</sup> brand aspirin in the United States) is a nonsteroidal anti-inflammatory drug (NSAID). It is used for pain relief and the prevention of second heart attacks. Bayer first synthesized aspirin in 1893 and began marketing it in powder form in Germany in 1900. We introduced the familiar Aspirin tablets in 1910. Aspirin currently ranks second in the analgesic category globally (source: International Medical Statistics (IMS) 2000).

*Aleve*<sup>®</sup> was launched in June 1994 by a Procter & Gamble/Syntex partnership as an OTC analgesic and is the only branded product on the market with an 8-12 hour dosing. It is a nonprescription strength of Anaprox, a fast-acting form of the medicine in Naprosyn. Bayer now markets Aleve in the United States through a joint venture with its producer, Roche Laboratories. Aleve is a long-lasting pain reliever, and can be used for fever reduction. Aleve ranks fourth in the U.S. analgesic category (source: Information Resources Inc. (IRI) 2000).

Our *Midol*<sup>®</sup> product family, which competes in the menstrual pain relief category, comprises several unique product positions, e.g., Maximum Strength Menstrual Formula, Teen Formula and Night Time Formula. Midol originally entered the market in 1910. We sell Midol products only in the United States and Canada. Midol is the U.S. leader in the menstrual analgesics segment (source: IRI 2000).

### *Cough/Cold*

The total cough and cold market is very large, representing approximately €10 billion in 2000. The cold/flu remedy segment comprises approximately 42 percent (€4.2 billion) of the total category. We expect the cold/flu segment to grow at approximately 1.8 percent per year through 2005.

Our main competitors globally are Pfizer (Actifed, Sudafed, Benadryl), Johnson & Johnson (Tylenol), Procter & Gamble (Vicks brands, including Nyquil), Schering-Plough (Chlor-Trimeton, Drixoral, Desenfriol, Demazin, Claritin) and American Home Products (Dimetapp, Dristan, Advil Cold & Sinus). The OTC category faces threats from “non-medicinal” remedies (e.g., nutritional or herbal products such as zinc supplements and echinacea) as well as from preventive medicines available by prescription or under development.

*Alka-Seltzer Plus*<sup>®</sup> is an effervescent product to relieve symptoms accompanying the common cold. We market Alka-Seltzer Plus in the United States and Canada. *Tabcin*<sup>®</sup> is a line of products similar to Alka-Seltzer Plus; we market it primarily in Latin America. We launched Alka-Seltzer Plus in 1969. Subsequent reformulations brought even more cold and flu symptom relief, providing temporary relief of nasal and sinus congestion, body aches and pains, runny nose, headaches, sneezing, fever and scratchy sore throat. In 1994, we introduced a line of Alka-Seltzer Plus in Liqui-Gel form. In late 2000, in response to a recommendation from the U.S. Food and Drug Administration to all manufacturers of products containing phenylpropanolamine, we discontinued marketing Alka-Seltzer Plus and similar products containing phenylpropanolamine in all of Consumer Care’s markets. We began our launch of reformulated products with Alka-Seltzer Plus in the United States in 2001 and expect to complete the worldwide relaunch during 2002.

*Aleve*<sup>®</sup> *Cold & Sinus* was launched in the United States in 2000 as the first long-lasting combination of analgesic naproxen sodium and nasal decongestant.

### *Dermatologicals*

The dermatological category includes a broad range of skin treatments. The products include medical cures, symptom relief aids, as well as additional caring items to enhance the treatment of skin problems. The total market represents approximately €6.1 billion. Within this market, we focus on the antifungal category, which in turn consists of three sub-segments: gynecological, dermatological and general topical/other antifungals. We estimate the antifungal portion of the dermatologicals market at approximately €2.3 billion, and that this market will grow at 2.6 percent per year through 2005.

Our main global competitors in OTC dermatologicals are: Johnson & Johnson, Novartis, Schering Plough and Roche. All topical dermatologicals face significant threats from the prescription drug area — the next generation antifungals (Lamisil), oral treatments (Diflucan, Sporanox), and potential switches of shorter duration

topical treatment products (Lamisil). Increasing competition also arises from locally marketed generic products and low-price brands.

*Canesten*<sup>®</sup> is treatment for vaginal yeast infections, athlete's foot and other dermatological problems. Our pharmaceuticals business group launched Canesten in 1973 as a prescription drug; since 1990, it has been switching to OTC status on a country-by-country basis. The gynecological products include six-, three- and one-day therapies. The dermatological line includes creams, powders, sprays and solutions. Canesten is the number two ranked topical antifungal brand worldwide (source: IMS 2000).

*Mycelex*<sup>®</sup> is a treatment for vaginal yeast infections. It is available in seven- and three-day treatments. Mycelex was previously available only with a prescription; it became an OTC medication in 1992.

*Rid*<sup>®</sup> is a topical head lice treatment. We acquired this brand from Pfizer (Warner-Lambert) in 2000. Rid has the largest unit market share in the United States (source: IRI 2000).

### *Gastrointestinals*

The gastrointestinal (GI) category includes antacids (H2 blockers, proton pump inhibitors and other substances that regulate excessive stomach acids), anti-gas products, digestives, laxatives and anti-diarrheals. Most proton pump inhibitors, however, currently remain under prescription, while H2 blockers have switched to OTC status only in the United States and a few other countries. Our primary focus within this category includes all non-prescription segments except laxatives and anti-diarrheals. In 2000, the global category (excluding those two segments) was valued at approximately €4.2 billion. We estimate that it will grow at 2.5 percent per year through 2005.

Our main competitors in the OTC GI category are Johnson & Johnson/Merck, GlaxoSmithKline and Pfizer. Longer term, all OTC GI products will face threats from related business areas including products switching from prescription to OTC status, OTC brand expansion from related categories (e.g., anti-diarrheal brands extending or re-positioning to cover the antacid segment) and possible future preventative or curative therapies (e.g., products that eradicate or manage the ulcer-causing bacterium *H. pylori*).

*Alka-Seltzer*<sup>®</sup> was developed in the late 1920s by Miles Laboratories, Inc. and began U.S. national distribution in 1931. Alka-Seltzer is used for speedy relief of acid indigestion, sour stomach or heartburn with headache, or body aches and pains. Today, we market Alka-Seltzer in close to 100 countries.

*Phillips' Milk of Magnesia*<sup>®</sup> is a saline laxative used as an overnight remedy for constipation and acid indigestion, heartburn or sour stomach that may accompany it. The original Phillips' formulation entered the U.S. market in 1873.

*Talcid*<sup>®</sup> was originally a prescription medication developed and sold by our Pharmaceuticals segment. Since 1988, it has obtained OTC status in several countries in Europe, Asia and South America. Talcid is used for the relief of symptoms from heartburn and acid indigestion.

### *Nutritionals*

The nutritionals category is very broad, encompassing vitamins, minerals, multi-vitamins/minerals, herbals, sports nutrition and specialty supplements in many different forms (tablets, powders, tonics, etc.). Applicable regulations vary greatly, both from country to country and across nutritional segments (e.g., herbals vs. vitamins). As a general rule, however, regulation of nutritionals tends to be less stringent than that of other OTC products. For example, numerous countries permit us to introduce vitamin supplements to the market as food supplements rather than OTC medications. Distribution channels for nutritional products are also very broad, usually broader than for other OTC products, and vary considerably from region to region. Bayer's primary interests in the nutritionals field are in the vitamin and mineral (especially multi-vitamins/minerals) and herbals segments.

The total vitamin, mineral and herbal market represented approximately €10 billion in 2000. Herbals represented the largest segment, at €3 billion, with multivitamins accounting for €2.6 billion. We expect the multivitamin market to grow at approximately 4.7 percent per year through 2005.

Global competition is varied and fragmented in the vitamin and mineral market, with local competitors playing a significant role in many countries. Major international companies in the nutritional category are American Home Products, Roche and Bristol-Myers Squibb.

*One-A-Day*<sup>®</sup> multivitamins entered the marketplace in 1940. In 1994, we restaged the franchise to include the Men's, Women's, 55 Plus, Maximum and Essential formulas. This restage enabled One-A-Day to position itself as the right vitamin choice for a variety of differing individual needs. In 1998, One-A-Day introduced a line of multivitamin/herbals blends to target specific health concerns (e.g., Energy, Tension, Prostate and Menopause). One-A-Day ranks number two in the U.S. vitamin category (source: IRI 2000) and has a small presence in various other countries worldwide.

*Flintstones*<sup>®</sup> are multivitamin dietary supplements containing 10-19 (depending on type) essential nutrients for children ages 2-12. They were introduced nationally in the U.S. in 1969, and are currently the children's chewable vitamin category leader (source: IRI 2000). *Bugs Bunny*<sup>®</sup> children's multivitamin were introduced in 1971 in the United States. It is the only national brand to position itself as sugar free. To strengthen our position in the children's vitamin market, we launched *Scooby Doo*<sup>®</sup> children's vitamins in the United States in 2001.

### *Household*

The Household category consists of various products that kill, repel or control harmful or annoying insects and protect humans and their personal environment. The category is valued at €4.7 billion globally; we expect it to grow at approximately 3 percent per year through 2005.

International players such as Bayer, S.C. Johnson, Sara Lee, Reckitt Benckiser and Clorox represent 42 percent of the world household market. We do not market insecticides in North America.

*Baygon*<sup>®</sup> is a line of household insecticides that target crawling, micro and flying insects, including moths. Globally, it is the number two insecticide brand (source: A.C. Nielsen, 2000).

*Autan*<sup>®</sup> is an insect repellent used for protection, skin care and after-bite care. It is the number two global insect repellent brand (source: A.C. Nielsen, 2000).

### **Markets and Distribution**

Our Consumer Care business group focuses on two main markets:

- *OTC*, medicinal products that consumers may generally purchase without a prescription. In some European markets, this category also includes products sold to consumers on a prescription basis and later reimbursed under an insurance plan.
- *Insect Control*, consumer insecticides used to combat crawling or flying insects in the household and insect repellents used for personal protection.

Our internal market studies estimate that the total OTC market represents approximately €54 billion worldwide, with 2.9 percent growth forecast through 2005. On a regional basis, the forecast annual growth for this period is 2.5 percent in the United States and 3.5 percent in Asia.

On a worldwide basis, the Insect Control market represents approximately €4.7 billion, with a forecast annual growth of 3 percent through 2005. The annual growth forecast for this period is 4.1 percent in Asia and 1.1 percent in South America.

The business group's sales by region and total for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe .....	465	434	434
North America .....	749	685	619
Asia/Pacific .....	207	156	129
Latin America/Africa/Middle East .....	502	408	419
Total .....	<u>1,923</u>	<u>1,683</u>	<u>1,601</u>

The following table sets forth the business group's sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Analgesics .....	731	640	620
Cough/Cold .....	110	150	132
Dermatologicals .....	225	172	153
Gastrointestinals .....	239	199	183
Nutritionals .....	179	163	144
Household .....	399	338	351
Other .....	40	21	18
Total .....	<u>1,923</u>	<u>1,683</u>	<u>1,601</u>

Although the business group is not generally subject to seasonality, the tendency of consumers to purchase more OTC medications in the cough/cold area can have an impact on this business in the United States, Canada, Mexico and Argentina, where these products form a significant part of our local OTC product portfolio. Similarly, Insect Control product sales in Europe can be sensitive to weather factors.

Consumer Care procures many high-volume raw materials, such as Propoxur, Bayothrin, acetylsalicylic acid, Bayrepel, and clotrimazole, internally from other Bayer business groups and companies. This high degree of vertical integration limits volatility. Our major externally procured high-volume raw materials are sodium citrate, sodium bicarbonate, citric acid and ascorbic acid. These are readily available commodities and are usually not subject to significant price fluctuations. Changes in oil and energy prices can affect a few key items, such as acetylsalicylic acid, phenol, aerosol cans and aluminum foil. We diversify our raw materials sources internationally to help balance currency exchange rate risk.

The typical sales and marketing channels of the business group worldwide are supermarkets and other mass marketers. In Europe, however, pharmacies are the usual distribution channel for OTC products.

We regard the following companies as our major competitors in the Consumer Care business:

- *OTC*: Johnson & Johnson, GlaxoSmithKline, American Home Products and Pfizer. Worldwide, we rank fifth, after Pfizer (source: Nicholas Hall OTC Yearbook 2001).
- *Insect Control*: S.C. Johnson, Reckitt Benckiser, Clorox and Sara Lee. Worldwide, we rank second, after S.C. Johnson (source: A.C. Nielsen, 2000).

### ***Research and Development***

The Consumer Care business group focuses its research and development activities on developing and implementing products and programs to contribute to business growth, including:

- efficient development of new products to support current brands; and
- aggressive clinical and regulatory strategies to creatively pursue ingredient prescription-to-OTC transitions and technology programs.

The business group's primary research and development facilities are located in Morristown, New Jersey and Leverkusen and Monheim, Germany.

We currently have six products in late stages of development. Depending on approval by regulatory authorities and completion of internal prelaunch activities, we expect to launch these products by 2002. These products are:

<u>Product/Brand name</u>	<u>Principal application</u>	<u>Status</u>
Aspirin Dry Granules . . . . .	Pain relief	Registration approved, launch expected during 2002
Aspirin + Pseudoephedrine . . . . .	Congestion, pain relief	Registration file submitted
Bayer Women's Aspirin Plus Calcium . . . . .	Osteoporosis and heart regimen	Launch expected during 2002
Alka-Seltzer Plus Nose + Throat . . . . .	Runny nose, sore throat	Launch expected in late 2002
Aspirin/Bayer Migraine . . . . .	Pain relief	Registration approved. European launch commenced in 2001
Alka-Seltzer Morning Relief . . . . .	Relief for headache, upset stomach and lethargy	Launch commenced during 2001

Bayer Corporation is involved in a 50 percent joint venture with Hoffmann-LaRoche to market and sell Aleve, Mycele, Femstat, Vanquish and Midol in the United States. Both partners are actively involved in the research and development planning for these products.

## **Diagnostics**

### **Overview**

With more than 8,000 employees worldwide, Bayer Diagnostics, based in Tarrytown, New York, is one of the largest diagnostics businesses in the world. We support customers in over 100 countries with an extensive portfolio of products for the central laboratory, near patient testing, and self-testing environments. These products serve in the assessment and management of health in such areas as infectious diseases, cardiovascular disease, oncology, virology, women's health and diabetes.

### **Products**

The following table lists the major products of the Diagnostics business group.

<u>Brand name</u>	<u>Description</u>	<u>Principal application</u>
ADVIA . . . . .	Family of immunoassay, clinical chemistry, hematology, and lab automation platforms for the laboratory testing environment	Automation of routine clinical tests in the central laboratory
Versant . . . . .	Nucleic Acid Diagnostics (NAD) assays	Highly specific assays for infectious diseases (HIV, HBV, HCV)
Clinitek and Multistix . . . . .	Family of urine chemistry analyzers and strips	Hospital and physician's office screening for indications of disease
Rapid Systems . . . . .	Family of instruments used for the measurement of blood gases/ electrolytes and coagulation	Monitoring of patients in critical care environment
Glucometer . . . . .	Family of instruments for the measurement of whole blood glucose in diabetics	Diabetes monitoring through patient self-testing and hospital whole blood glucose testing

### Central Laboratory Testing

The ADVIA family of products is the centerpiece of our laboratory testing portfolio, which provides a wide range of solutions for the central laboratory. The ADVIA family includes:

- The *ADVIA Centaur*<sup>®</sup> Immunoassay System, a high-throughput immunoassay system. Immunoassays are important diagnostic tools that measure such substances as proteins, steroids, drugs and antibodies in patients' blood. These immuno-diagnostic systems provide physicians with information to detect and monitor a wide variety of diseases. ADVIA Centaur has a comprehensive test menu that can perform up to 240 tests per hour. A survey conducted by Enterprise Analysis Corporation rated the ADVIA Centaur system number one in the United States for ease of use, efficiency and productivity;
- The *ADVIA*<sup>®</sup> 1650 Clinical Chemistry System, a medium-to high-throughput system with a broad test menu that can perform up to 1650 tests per hour. Its reduced reagent volume can improve cost efficiency, optimize workflow, and enhance patient management;
- The *ADVIA*<sup>®</sup> 120 Hematology System, a high-volume hematology analyzer with five-part differential that can analyze up to 120 samples per hour, as well as the *ADVIA*<sup>®</sup> 70, a medium-sized version that we launched in 2001; and
- The *ADVIA WorkCell*<sup>®</sup>, a laboratory automation solution connecting instruments from different disciplines for high-volume laboratories.

In addition to our ADVIA family of products, we also offer the *ACS:180*<sup>®</sup> and *Bayer Immuno 1*<sup>®</sup> immunodiagnostic analyzers as well as the *Clinitek Atlas*<sup>®</sup> urine chemistry system for high volume urinalysis testing. For highly specific testing of infectious diseases, we offer a family of DNA probes under the *Versant*<sup>®</sup> brand for the testing of HIV and Hepatitis B and C.

### Near Patient Testing

We offer a variety of solutions for the near patient testing environment, both in the hospital and in physicians' office laboratories.

For the critical care environment, we offer the *Rapid*<sup>®</sup> family of instruments and reagents for the measurement of Blood Gases/Electrolytes and Coagulation. Among our major products in this category are:

- *Rapidlab 800*<sup>®</sup>, a fully automated critical care system covering key critical care whole blood parameters, and offering comprehensive on-board information management;
- *Rapidpoint 400*<sup>®</sup>, our newest blood gas/electrolyte analyzer, specifically developed for the hospital point-of-care environment;
- *Rapidpoint Coag*<sup>®</sup>, a portable, battery-operated coagulation monitor which provides rapid assessment of pre- and post-operative bleeding at the point of care; and
- *RapidLink*<sup>®</sup>, our critical care information management system.

In the field of urinalysis, we offer the *Multistix*<sup>®</sup> family of reagent strips for visual reading of up to 10 parameters and the *Clinitek*<sup>®</sup> line of instruments for automated readings.

We also offer the *DCA 2000+*<sup>®</sup> for use in physicians' offices to complement our diabetes self-testing products. The DCA 2000+ analyzer allows doctors to rapidly assess the effectiveness of diabetic patients' self-monitoring over a period of time.

### Self-Testing

Our key self-testing products include:

- The *Glucometer Dex/Esprit*<sup>®</sup>, meters that incorporate a 10-test cartridge to provide more convenience to patients who test their blood sugar levels several times per day; and

- The *Glucometer Elite*<sup>®</sup>, our best-selling diagnostics product, a versatile blood glucose meters that serves a wide spectrum of patient needs.

### **Markets and Distribution**

Our Diagnostics business group markets its products in over 100 countries worldwide, both directly and through a network of distributors. Our principal markets include North America, Western Europe and Japan.

The business group's sales by region and total, for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe .....	700	607	445
North America .....	868	716	474
Asia/Pacific .....	307	301	134
Latin America/Africa/Middle East .....	90	57	34
Total .....	<u>1,965</u>	<u>1,681</u>	<u>1,087</u>

The following table sets forth the business group's sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Laboratory testing (excl. NAD) .....	776	674	376
NAD testing .....	65	63	5
Near patient testing .....	419	352	188
Self-testing .....	705	592	518
Total .....	<u>1,965</u>	<u>1,681</u>	<u>1,087</u>

In 2000, the worldwide diagnostics market amounted to nearly €20 billion. Although this market contains both mature and high-growth segments, we expect the market as a whole to grow at 5 to 6 percent per year through 2005.

Laboratory testing represents almost two thirds of the global diagnostics market, with a value of €13 billion in 2000, and is growing at a rate of 4 percent per year. Abbott leads the traditional laboratory testing market segment (excluding nucleic acid diagnostics, or NAD), primarily driven by its established position in the immunoassay market. Roche holds second position in this segment, due to its strong position in clinical chemistry. We are the fifth largest company in this category, but have been building a strong position in immunodiagnostics over the past several years.

Nucleic acid diagnostics is a rapidly expanding area of clinical laboratory testing that focuses on detection of nucleic acids such as DNA and RNA that can indicate the presence of infections and other diseases in patients. Although the NAD segment of the diagnostics market amounted to only €750 million in 2000, it is growing at over 20 percent per year. Roche leads the NAD market, followed by GenProbe. We are in fourth position, focusing on tests for Hepatitis C virus (HCV) and Human immunodeficiency virus (HIV).

The near patient testing markets that we serve include critical care (blood gas/electrolyte), urinalysis and hospital coagulation systems. In 2000, this market had a value of approximately €1.2 billion and is growing at 7 percent per year. We have leading positions in critical care and urinalysis, followed by Roche.

The market for diabetes testing amounted to nearly €4 billion in 2000 and is growing at 11 percent per year. Roche is the market leader, followed by Johnson & Johnson. We are in third position, followed by Abbott. (Sources: SG Cowen, Clinica, Boston Biomedical Consultants, Merrill Lynch, company annual reports.)

We market our laboratory testing and NAD products, as well as most of our near patient testing products of the segment, directly to customers, which are primarily laboratories and hospitals. We channel our self-testing

products to the consumer market through distributors and large pharmacy and retail chains. In the near patient testing segment, we market urine chemistry strips primarily through distributors.

We manufacture or assemble a significant portion of our own products, relying on a vendor management process to supply both raw materials and sub-assemblies. In addition, we source a number of products from original equipment manufacturer, or OEM, suppliers. Our most significant OEM relationship involves our Glucometer Elite blood glucose meter and test sensors. Matsushita manufactures this equipment in Japan; our supplier is Arkray. Diagnostics sales typically slow down in the third calendar quarter due to traditional vacation time in Europe and North America, but show strong performance in the fourth quarter as customers push to spend budgeted funding before the end of the year.

Our primary competitors in the diagnostics market are:

- *Laboratory testing:* Abbott, Roche, Beckman Coulter, Dade Behring and Johnson & Johnson;
- *NAD testing:* Roche and Abbott;
- *Near patient testing:* Roche and Radiometer; and
- *Self-testing:* Roche, Johnson & Johnson (Lifescan) and Abbott.

**Research and Development**

Our Diagnostics business group focuses its research and development activities primarily on strengthening its core product lines and in expanding into high growth/high margin segments of the market:

- In Laboratory Testing, through internal development and in-sourcing of the ADVIA family of systems and in the expansion of high value assays.
- In NAD testing, through menu expansion of assays for infectious disease and cancer testing.
- In Near Patient Testing; through enhancements of our Rapid systems, a new hospital point-of-care platform, and new multiples for urinalysis.
- In Self-Testing, through internal development and in-sourcing of mass market, user-friendly whole blood glucose systems and by focusing research in minimally- and non-invasive technologies.

The business group’s primary research and development facilities are located in the United States: in Medfield and Cambridge, Massachusetts; Tarrytown, New York; Elkhart, Indiana; and Emeryville, California.

We currently have a number of products in late stages of development. Depending on completion of clinical trials and subsequent grant of any necessary FDA approvals, we expect to launch these products during the periods indicated below. These products are:

<u>Product/Brand name</u>	<u>Principal application</u>	<u>Status</u>
ADVIA IMS®Integrated Modular System . . . . .	Modular platform, combining immunodiagnostic and clinical chemistry on a single instrument with a broad assay menu	Launch planned for 2003
ADVIA Centaur®and ACS:180® menu extension . . . . .	Extension of immunoassay menu for disease diagnosis	Launch planned for 10 additional methods in 2002
VERSANT HIV 3.0 . . . . .	Quantitative detection of HIV	Awaiting FDA approval trials
VERSANT HCV 3.0 . . . . .	Quantitative detection of hepatitis C	Undergoing FDA clinical trials; approved outside the United States

<u>Product/Brand name</u>	<u>Principal application</u>	<u>Status</u>
VERSANT HCV TMA . . . . .	Quantitative detection of hepatitis C	Undergoing FDA clinical trials; approved outside the United States
RapidLab 800 Enhancement . . . . .	Blood gas/electrolyte analyzer for laboratory testing	Launch planned for 2003
MULTISTIX PRO . . . . .	Addition of proprietary microalbumin and creatine reagent pads for improved screening for kidney dysfunction	Launch planned for 2002
Next-generation Glucometer system . . . . .	“Less Pain” whole blood glucose system	Launch planned for 2003

## CROP PROTECTION

### Overview

Our Crop Protection segment develops and markets conventional chemical crop protection products (insecticides, fungicides and herbicides). Using functional genomics, a discipline that analyses the functional effects of differing genetic structures, we also develop new chemical structures for conventional active ingredients, creating new modes of action for enhanced effectiveness against pests, weeds and fungi. The following table shows the segment’s performance for the last three years.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
External net sales . . . . .	2,456	2,177	2,045
Percentage of total sales (continuing operations) . . . . .	8.6	9.2	9.5
Intersegment sales . . . . .	97	83	76
Operating result before exceptional items . . . . .	401	383	439
Percentage of total operating result (continuing operations) . . . . .	11.3	12.3	14.0

The following table shows our revenue during the past three years from the product that we regard as material to the revenue of the Crop Protection segment as a whole.

<u>Product</u>	<u>2000</u>		<u>1999</u>		<u>1998</u>	
	<u>Revenue (euros in millions)</u>	<u>Percentage of segment revenue</u>	<u>Revenue (euros in millions)</u>	<u>Percentage of segment revenue</u>	<u>Revenue (euros in millions)</u>	<u>Percentage of segment revenue</u>
Imidacloprid (Confidor, Gaucho, Admire, Provado)* . . . . .	560	22.8	464	21.3	414	20.2

\*Also used in our Animal Health segment’s Advantage product.

### Segment Strategy

We plan to incorporate our Crop Protection business as a separate wholly owned direct subsidiary of Bayer AG. See — *Business Overview*. This new Crop Protection subsidiary will combine our current business and the business that we expect to acquire upon completion of the Aventis CropScience acquisition (see below).

We intend to continue expanding our crop protection franchise through ongoing life cycle management. We significantly strengthened our position in this field by acquiring Zeneca’s seed treatment business, as well as through our acquisition of 50 percent of the U.S. company Gustafson in 1998. In the Home Garden Market we seek to be a market leader by fully utilizing our existing portfolio and product pipeline, as well as through strategic joint ventures and acquisitions.

Because we consider chemical crop protection to be the main driver of growth in the crop protection market, we will concentrate our product development activities on research in innovative chemistry. For example, we have developed imidacloprid into one of the world's leading insecticides by steadily expanding the indications for which it is approved. Genetically modified organisms (GMOs) include plants modified to increase crop output or resistance to certain diseases. Historically, we have not developed GMOs. However, we believe farmers are willing to pay for products that help protect their sizable investments in GMO technology. We therefore market crop protection products designed for use on GMOs. We have concluded that entry into the GMO market would be attractive if it offered both strategic and economic benefits. We believe that the successful consummation of the Aventis CropScience acquisition will provide an opportunity for us to enter this market.

In 2000, the Crop Protection segment spent €233 million on capital expenditures. We acquired the Flint line of strobilurin products from Novartis for approximately €880 million. We believe that this acquisition makes us number two in the world fungicides market and reinforces our crop protection business for the long term. We are also investing approximately €110 million on a multi-purpose facility for crop protection active ingredients at our Dormagen, Germany site.

Our Crop Protection segment's research and development activities seek to increase agricultural productivity worldwide by developing innovative crop protection products that excel in terms of efficacy, user-friendliness, environmental compatibility and cost-effectiveness. To gain access to innovative technologies, we have entered into collaborations with and invested in several agrobiological companies. We aim to launch at least two new products in this segment each year.

In October 2001, we agreed to acquire Aventis CropScience from its current owners, Aventis and Schering. In November 2001, the U.S. Federal Trade Commission began an in-depth analysis of the proposed acquisition, and in December 2001, the European Commission announced that it would subject the transaction to a detailed investigation to determine whether the acquisition violates EU competition law. Approval by the applicable antitrust and competition authorities is one of the conditions to consummating the acquisition. These regulations could also condition their approval on the divestiture of individual business lines from the combined enterprise. We do not believe that these investigations will delay our expected closing by the end of the first quarter of 2002.

Assuming the successful closing of our Aventis CropScience acquisition, we would not expect to make additional major acquisitions in our Crop Protection segment in the near term. For a description of the planned acquisition, see "Acquisition of Aventis CropScience" in Item 8, *Operating and Financial Review and Prospects — Recent Developments and Trend Information — Outlook*.

## Products

The following table lists the major products of the Crop Protection segment.

<u>Active ingredient</u>	<u>Brand Names</u>	<u>Principal application</u>
<i>Insecticides</i>		
Imidacloprid . . . . .	Confidor, Gaucho, Admire. Provado	Broad spectrum insecticide, primarily against sucking insects
Cyfluthrin/beta-cyfluthrin . . . . .	Baythroid, Bulldock	Broad spectrum insecticide, primarily against biting insects
<i>Fungicides</i>		
Tebuconazole . . . . .	Folicur, Raxil	Fungicide used as spray, seed treatment and for special applications
Trifloxystrobin . . . . .	Flint	Fungicide against main plant diseases in various crops

<u>Active ingredient</u>	<u>Brand Names</u>	<u>Principal application</u>
<i>Herbicides</i>		
Metribuzin . . . . .	Sencor	Control of broadleaf weeds and grasses
Metamitron . . . . .	Goltix	Control of broadleaf weeds and grasses in specialty crops
Flufenacet . . . . .	Axiom, Domain	Control of grass weeds
<i>Garden/Professional Care</i>		
Imidacloprid . . . . .	Premise, Merit	Grub and termite control

*Insecticides*

Imidacloprid, the first active ingredient in a new class of chemicals (chloronicotinyls syn. neonicotinoids), represented an agricultural breakthrough. It answers the current consumer demand for effective insecticides with low toxicity and environmental impact. Imidacloprid helps control many pests, including aphids, thrips, whiteflies, leafhoppers, locusts, leafminers, wireworms, and many species of beetles, and is suitable for a wide variety of application methods, including foliar spray, soil drench, seed treatment and drip irrigation. Imidacloprid's broad spectrum of activity and flexible application have made it a leading insecticide in worldwide agriculture (source: Wood Mackenzie Agrochemical Service, Companies Section, June 2000). We use imidacloprid in our *Gaucho*<sup>®</sup>, *Confidor*<sup>®</sup>, *Admire*<sup>®</sup> and *Provado*<sup>®</sup> brand products.

We launched imidacloprid in 1991 and now market it in more than 120 countries for use on over 140 crops. Competitors have recently launched three products of the same class. We expect the launch of two further competing compounds within the next three years. To strengthen our position in this market, we launched a second compound of this class in 2001 and are working together with Takeda on a third compound, which we expect to launch in 2003. With these developments, we aim to secure and build upon our current leading position.

Cyfluthrin (*Baythroid*<sup>®</sup>) and beta-cyfluthrin (*Bulldock*<sup>®</sup>) are broad-spectrum insecticides. Although used primarily against biting insects, they are also effective against various sucking pests. Both compounds, introduced in the 1980s, belong to the chemical class of pyrethroids. Their rapid initial action and long lasting residual activity have been particularly useful to U.S. cotton farmers. Cyfluthrin and beta-cyfluthrin are also registered for use on a broad range of other crops, including potatoes, soybeans, cereals, sugarcane and sunflowers.

We expect the market for cyfluthrin and beta-cyfluthrin to remain stable. On the one hand, we plan to expand the applicability of these products to additional crops, creating the potential for growth in new and existing markets. On the other hand, we expect that price pressure from generic pyrethroids and the broad acceptance of BT cotton (a GMO cotton that produces its own natural insecticide) will offset this growth, at least in part.

*Fungicides*

*Folicur*<sup>®</sup> and *Raxil*<sup>®</sup> contain tebuconazole, a fungicidal compound that plants transport upward through their internal flow of fluids in the case of seed treatments and towards the leaf tip in the case of spray treatments. Like all triazole fungicides, tebuconazole prevents the targeted fungus from synthesizing vital components of its cell membrane.

Tebuconazole belongs to the new generation of triazole fungicides, which are highly effective against a wide range of pathogens. Tebuconazole can be used as spray (*Folicur* and related product brands), as a seed treatment (*Raxil*) and in special applications, such as sealing wounds in woody plants and in material protection. In addition, tebuconazole has certain plant growth-regulatory properties that are useful in raising certain crops, particularly oilseed rape.

*Folicur* formulations are registered in over 70 countries for use on more than 80 crops. Tebuconazole was first introduced in 1988. It is currently Crop Protection's second most successful compound after imidacloprid.

Tebuconazole faces competition from such new-generation triazole compounds as epoxiconazole, metconazole and difenoconazole.

*Flint*<sup>®</sup> contains trifloxystrobin, a second generation broad-spectrum strobilurin-type fungicide with improved protective and curative properties against main plant diseases in cereals, fruits and nuts, grapes, rice, bananas and turf.

Strobilurins are a class of broad-spectrum fungicide developed by modifying a core chemical originally isolated from cultures of the mushroom *Strobilurus tenacellus*. The main advantages of the strobilurins are their novel mode of action, high efficacy against the major groups of fungal diseases, activity on a wide range of crops, systemic action with outstanding preventive effect, and excellent safety and environmental profile. Trifloxystrobin represents an important new addition to Bayer's fungicide portfolio, supplementing our triazole-based products and extending our capabilities in the specialty cereal fungicide sector.

Although strobilurin fungicides are used on a wide variety of crops, cereals represent the most important crop class in terms of strobilurin sales. Trifloxystrobin first entered the market under the Flint brand name in Switzerland in 1998 and South Africa in 1999. Trifloxystrobin is currently registered in 35 countries. We anticipate full commercial roll-out by 2003. Our goal is to establish a broad portfolio of fungicides by integrating trifloxystrobin with Bayer's existing fungicide line, notably tebuconazole. We aim thereby to increase our position in the fungicide field.

### *Herbicides*

Bayer's herbicide portfolio encompasses both mature and growing products as well as compounds under development that we expect to introduce over the next few years.

According to our internal market studies, *Senacor*<sup>®</sup>, our major metribuzin brand, is a leader in the potato market and occupies a major position in the tomato market. Introduced in 1972, metribuzin is a soil- and leaf-active herbicide used against broadleaf weeds and grasses. The product can be used on more than 36 different crops. Despite metribuzin's maturity, we have extended its lifecycle by using the product as a mix partner with other key herbicides, thereby increasing our position in the corn and soybean herbicide market.

Flufenacet is our new pre-emergence herbicide for the control of grass weeds. It is effective in low dosages for the protection of numerous crops, including corn, soybeans, potatoes, cereals and rice. Flufenacet entered the worldwide market in 1998. We believe it has a strong potential for growth. *Axiom*<sup>®</sup>, *Domain*<sup>®</sup> and *Epic*<sup>®</sup>, our major flufenacet brands in the United States, are innovative solutions for a changing market environment. For example, *Domain*, a flufenacet/metribuzin mix, is a specific herbicide developed for the protection of "Roundup Ready" soybeans, which have been genetically modified to resist certain herbicides.

*Goltix*<sup>®</sup>, launched in 1978, is a specialty herbicide, used primarily on sugar beets to control a range of broadleaf and some grass weeds. Although *Goltix* has maintained its number one position in the sugar beet herbicide market segment (source: Phillips McDougall Agriservice, Crops Section, May 2000), it faces competition from generic metamilon-based products, most of them from India. In response to this competition, we have implemented new pricing and market segmentation strategies.

### *Garden/Professional Care (GPC)*

*Premise*<sup>®</sup> is an imidacloprid-based termiticide launched in 1996 in the United States. It was the first liquid non-repellent termiticide. We now market *Premise* in the United States, Japan, Australia, South Africa and South East Asia, covering more than 80 percent of the global termiticide market. *Premise* provides excellent termite control with low toxicity, has favorable soil characteristics and is odorless. Its chief competition is from chlorpyrifos-based products, pyrethroids and the recently introduced, fipronil-based *Termidor*<sup>®</sup>. *Premise* sales have increased significantly during the last four years. Our goal is to establish *Premise* as the leading liquid termiticide worldwide.

We launched *Merit*<sup>®</sup>, an imidacloprid-based compound for the turf and ornamental market, in 1994 in the United States. *Merit* is a low-toxicity insecticide of the new chloronicotinyl class. It is broad-spectrum, systemic and effective in low doses. It shows excellent season-long control of soil-inhabiting and crown-inhabiting insects on turf grass, as well as of sucking and biting insects on ornamental plants. Competitor products are

organophosphates, such as chlorpyrifos and pyrethroids. We believe that Merit is currently the number one product for grub control in the U.S. turf market segment.

**Markets and Distribution**

In 1999, the global market for crop protection products shrank by 1.4 percent to a value of €26.8 billion. Herbicides for the major arable crops such as cereals, corn, cotton and soy represented 47 percent of this total. The market share for insecticides increased to 26 percent and for fungicides to 20 percent, primarily reflecting increased use in the cereal-growing regions of Europe and in the cultivation of fruit, wine and vegetables.

During the same period, and despite difficulties caused by low commodity prices and a drop in farm incomes, we increased our market share. Despite continuing consolidation in this market, we rank second in insecticides (source: Phillips McDougall Agriservice, Companies Section Part I, May 2000).

Europe has traditionally been Bayer’s strongest crop protection market. This region accounted for 41 percent of our sales in this market in 1999. During the same period, Europe represented 27 percent of the total world market. The significance of the European market for Bayer is, however, declining in favor of other regions.

The largest market in the world is the NAFTA region, including Canada, the United States and Mexico, accounting for 31 percent of the total in 1999. In that year, the NAFTA region accounted for 22 percent of our Crop Protection business, up from 19 percent in 1998. Bayer has also improved its market position in Latin America in recent years and has experienced an increase in demand from South-East Asia, Japan and India.

In 2000, the global market for crop protection products grew to a value of €30.3 billion, an increase of 13.4 percent compared to 1999. Herbicides represented 46 percent, insecticides 26 percent and fungicides 20 percent of the total.

Europe accounted for 36 percent of our sales in 2000. We are seeking to achieve sales balance by increasing our market significance in other, non-European markets. For example, in 2000 the NAFTA region accounted for 25 percent of our Crop Protection business, up from 22 percent in 1999.

The segment’s sales by region and total for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe . . . . .	886	881	856
North America . . . . .	557	442	358
Asia/Pacific . . . . .	517	399	326
Latin America/Africa/Middle East . . . . .	<u>496</u>	<u>455</u>	<u>505</u>
Total . . . . .	<u>2,456</u>	<u>2,177</u>	<u>2,045</u>

The following table sets forth the segment’s sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Insecticides . . . . .	1,026	929	891
Fungicides . . . . .	722	638	570
Herbicides . . . . .	451	416	435
GPC . . . . .	<u>257</u>	<u>194</u>	<u>149</u>
Total . . . . .	<u>2,456</u>	<u>2,177</u>	<u>2,045</u>

Because nearly 80 percent of Bayer’s crop protection business is located in the northern hemisphere, our business is affected by the seasonality of the various crop cycles.

We obtain the bulk of our raw materials from within the Bayer Group. We also enter into minor long-term contracts with non-Bayer companies, for example for toll manufacturing, when we believe that these arrange-

ments meet our quality standards at competitive prices. We believe that our supply strategy provides our production, formulation and distribution units with high-quality raw materials and end products at competitive prices with a high degree of availability and low volatility.

We typically market our Crop Protection products through a one- to two-step marketing distribution system. Under this system, we sell to wholesalers, who in turn sell to retailers, as well as to large-scale retailers. The retailers supply end users with our products as well as with advice on their use. We believe that our new e-commerce platform, launched in the United States in late 2000, will fit well into this marketing strategy, helping us to improve service while satisfying customer demand.

Our main competitors in the insecticide, fungicide and herbicide businesses are Syngenta, Aventis, Monsanto, BASF, Dow AgroSciences and DuPont. Scotts is our primary competitor in the home garden business while Aventis, Syngenta and Dow AgroSciences are our main competitors in professional garden care products.

### **Research and Development**

The Crop Protection segment focuses its research and development activities on developing new active ingredients for insecticides, fungicides and herbicides. We also seek to develop new formulations for existing active ingredients, expanding their applicability to additional crops and countries and thereby augmenting their sales potential.

The segment's primary research and development facilities are located in Monheim, Germany, Kansas City, Missouri, and Yuki, Japan.

During 2001 we began the launch process of four new active ingredients, and expect to launch two additional active ingredients in 2002. These products are:

<u>Product/Brand name</u>	<u>Application</u>	<u>Status</u>
Iprovalicarb . . . . .	Fungicide	Launched in 2001
Thiacloprid . . . . .	Insecticide	Launched in 2001
Fentrazamide . . . . .	Herbicide	Launched in 2001
Flucarbazone-Sodium . . . . .	Herbicide	Launched in 2001
Propoxycarbazone-Sodium (proposed) . . . . .	Herbicide	Launch expected in 2002
Methoxyfenozone . . . . .	Insecticide	Launch expected in 2002

## **ANIMAL HEALTH**

### **Overview**

Our Animal Health segment develops and markets such animal health products as veterinary medicines, environmental health products and nutritionals for the health care of both companion animals and commercial livestock/poultry. In addition, the segment develops products for insect and rodent control. The following table shows the segment's performance for the last three years.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
External net sales . . . . .	999	917	886
Percentage of total sales (continuing operations) . . . . .	3.5	3.9	4.1
Intersegment sales . . . . .	6	6	1
Operating result before exceptional items . . . . .	157	137	124
Percentage of total operating result (continuing operations) . . . . .	4.4	4.4	4.0

### **Segment Strategy**

We plan to hold all our Health Care businesses (including Animal Health, Pharmaceuticals and Consumer Care & Diagnostics) as a separate wholly owned direct subsidiary of Bayer AG. See — *Business Overview*.

To ensure early access to frontline technologies, we have entered into several collaborations and invested in innovative agrobiological companies whose biotech-based expertise is broadly applicable to the agricultural industries. We aim thereby to continue our current pipeline output of at least two new product launches each year. The segment plans to investigate substances developed by our Crop Protection and Pharmaceuticals segments with a view to adapting these substances for animal health applications. Through this approach we aim to exploit synergies within Bayer's life-science network.

In 2000, the Animal Health segment spent €50 million on capital expenditures. The segment's research and development activities seek to increase agricultural productivity worldwide by developing innovative animal health products that excel in terms of efficacy, user-friendliness, environmental compatibility and cost-effectiveness.

## Products

The following table lists the major products of the Animal Health segment.

<u>Brand name</u>	<u>Active ingredient</u>	<u>Indication</u>
<b>Parasiticides</b>		
Advantage . . . . .	Imidacloprid	Flea control, cats & dogs
Droncit . . . . .	Praziquantel (plus combinations)	Dewormer, cats & dogs
Drontal		
Bayticol . . . . .	Flumethrin	Tick control
Baycox . . . . .	Toltrazuril	Therapy of coccidiosis
<b>Antimicrobials</b>		
Baytril . . . . .	Enrofloxacin	Broad spectrum therapy of bacterial infections
<b>Biologicals</b>		
Bayovac FMD vaccine . . . . .	Various FMD virus strains	Immunization against foot-and-mouth disease
Bayovac IBR Marker vaccine . .	Gene-deleted IBR virus strain	Immunization against bovine respiratory diseases
<b>Environmental health products</b>		
Blattanex . . . . .	Cyfluthrin	Control of flying insects
Solfac		
Responsar		
Tempo		

### Parasiticides

*Advantage* is a flea control product in easy-to-use, spot-application form. Its main competitor is Frontline, produced by Merial. We expect this market to develop further, especially for anti-flea products combined with products for such other indications as ticks, heartworm and intestinal worms. *Advantage*, which we launched in 1996, remains one of the leading anti-flea products (source: Wood Mackenzie, *Top 30 Veterinary Pharmaceutical Products*, info-fax of June 30, 2000).

The *Droncit* and *Drontal* product family offers solutions for the control of tapeworm and roundworm in various formulations and combinations. This product family is a leader in its market segment (source: Wood Mackenzie, June 2000). We are currently conducting a promotion campaign for prophylactic deworming in an effort to create further market growth.

*Bayticol* is a highly effective topical treatment against all forms of ticks in livestock animals. Its main competitor is Ivomec, produced by Merial, and other avermectins. Demand for these treatments is stable, although prices have been decreasing.

*Baycox* is an important treatment for controlling coccidiosis, primarily in poultry and, more recently, in hogs. We are also exploring the expansion of this products application to cover other species as well.

### *Antimicrobials*

The *Baytril* family represents the leading antimicrobial of the fluoroquinolone class in the treatment of severe bacterial infections in animals (source: Wood Mackenzie, June 2000). Sales of Baytril are, however, coming under increasing pressure for two reasons:

- competition from generic products; and
- in the United States, concerns about development of potential human cross-resistance, which could lead to a product ban.

### *Biologicals*

The *Bayovac* vaccine family comprises two main product types. Foot and mouth disease, or FMD, vaccines have been part of this product line for 50 years. Our main competitors in this market are Merial and Intervet. Because of the nature of the customer base and sales patterns (for example, substantially all sales in Germany are made to the government for its strategic reserves), we do not believe there is potential for significant market expansion.

With our Bayovac IBR Marker vaccines we have introduced a new principle in epidemic control of bovine respiratory disease. This product makes it possible to distinguish vaccinated from infected animals. As non-infection is a prerequisite for free trade, we believe that this unique product has strong potential for sales in regions outside Europe.

### *Environmental health products*

Our family of Cyfluthrin products, which comprises several distinct brands, targets various flying insects. Based on our internal studies, we believe that we are number three in this market, where we compete with comparable products from Aventis, Sumitomo and Zeneca. We expect further growth as we offer customer tailored system solutions for various customer groups.

### ***Markets and Distribution***

The Animal Health business covers worldwide markets, including emerging markets such as China, Vietnam and others in South-East Asia. We organize the activities of the segment along the lines of its market activities, into livestock, companion animal and environmental health.

The segment's sales by region and total for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe . . . . .	267	268	284
North America . . . . .	356	329	300
Asia/Pacific . . . . .	184	157	132
Latin America/Africa/Middle East . . . . .	<u>192</u>	<u>163</u>	<u>170</u>
Total . . . . .	<u>999</u>	<u>917</u>	<u>886</u>

The following table sets forth the segment's sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Parasiticides . . . . .	443	390	416
Antimicrobials . . . . .	191	167	143
Biologicals . . . . .	81	95	100
Environmental health products . . . . .	125	99	94
Nutritionals . . . . .	78	68	76
Others . . . . .	<u>81</u>	<u>98</u>	<u>57</u>
Total . . . . .	<u>999</u>	<u>917</u>	<u>886</u>

On a worldwide basis, the activities of the Animal Health segment are not subject to any significant seasonal effects. Other business entities belonging to the Bayer Group are the primary suppliers of materials for Animal Health.

Depending on local legislation Animal Health products may be available to end users on a prescription or non-prescription basis. End users purchase prescription products from veterinarians or pharmacies. Non-prescription products are available through retailers, cooperatives or directly to integrators in the livestock segment; to pet shops and other specialized channels in the companion animal market; and on the mass markets. We often use third-party distributors in these markets.

Our main competitors in the animal health business are Merial, Pfizer Animal Health and Intervet. We currently rank fourth in this market, closely behind Intervet (source: Wood Mackenzie, December 2000).

### ***Research and Development***

The Animal Health segment focuses its research and development activities on antimicrobials, parasiticides and pain and cancer remedies. A particular goal of our research and development efforts is to provide the segment with patent-protected products (new active ingredients, formulations and application technologies).

The segment's primary research and development facilities are located in Monheim, Germany and Kansas City, Missouri.

We see our greatest current challenge in the highly competitive but attractive field of parasiticides, where we are developing various treatments and treatment combinations for a variety of indications.

We currently have four products or product families in late stages of development. Subject to regulatory approval, we expect to launch these products by 2002-2003. These products are:

<u>Product/Brand name</u>	<u>Indication</u>	<u>Status</u>
Baycox Piglet . . . . .	Coccidiosis control in swine	In registration
Pyrethroid spray . . . . .	Tick control in dogs	Phase III
Endoparasiticide and ectoparasiticide combinations . . . . .	Control of fleas, heartworm and roundworm in cats and dogs	Phase III
Cancer remedy . . . . .	Cancer therapy in dogs	Phase III

## PLASTICS & RUBBER

### Overview

Our Plastics & Rubber segment comprises the business groups Plastics and Rubber. The following table shows the segment's performance for the last three years.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
External net sales . . . . .	5,816	4,627	4,331
Percentage of total sales (continuing operations) . . . . .	20.3	19.6	20.0
Intersegment sales . . . . .	122	114	93
Operating result before exceptional items . . . . .	560	443	500
Percentage of total operating result (continuing operations) . . . . .	15.8	14.2	15.9

No individual product is material to the revenue of the segment as a whole.

### Segment Strategy

We plan to hold our Plastics & Rubber and Polyurethanes, Coatings & Colorants segments as a separate wholly owned direct subsidiary of Bayer AG that will be responsible for all Bayer's Polymers businesses. See — *Business Overview*.

Our goal is to continue expanding our global leadership in high-value added plastic and rubber products. We intend to continue developing new applications for our products. One example is the use of polycarbonates in automotive glazing applications. We aim to improve profit margins by continually sifting out any weaknesses in our existing product portfolio, implementing efficient cost structures, eliminating capacity constraints and further exploiting our regional growth potential.

In 2000, the Plastics & Rubber segment spent €652 million on capital expenditures.

Encouraged by favorable growth forecasts for the Asian polycarbonates market, we intend to spend up to €960 million there over the next four years on plastics production facilities alone. We also intend to create a second northeast Asian production center for our Makrolon polycarbonate at the Shanghai Chemical Industry Park in China. We are building this facility in cooperation with Shanghai Chloralkali Company; it is scheduled to go on-stream in 2003. In addition, we intend to extend our polycarbonate film production operations in the Far East, thereby increasing our global capacity. We expect to incur further expenditures at our Leverkusen, Germany site, where we recently spent €60 million to build a new production facility for our hydrogenated nitrile rubber, Therban. This plant, which incorporates technological innovations designed to facilitate an environmentally friendly manufacturing process, is receiving the financial backing of the German Ministry of the Environment.

During the period 2001-2002, we plan to spend a total of €20 million to increase capacities for emulsion styrene-butadiene rubber and acrylonitrile-butadiene rubber at our site at La Wantzenau, near Strasbourg, France, from 100,000 to 150,000 tons. We have chosen this site as the European center for these products due to its central location and flexibility.

As a leading manufacturer, we aim to exploit the full growth potential of plastics and rubber materials through innovative research and development. We place particular emphasis on developing new and improved production processes, improving our product range and opening up new areas of application.

## Plastics

### Overview

With its broad product portfolio, our Plastics business group is one of the leading global suppliers and manufacturers of engineering thermoplastics. Many Bayer materials have chemical and physical properties that

enable them to resist high operating temperatures and corrosive chemicals or solvents. Impact strength, even at temperatures as low as -40/-50°C, is another important property typical of our products.

**Products**

The following table lists the major products of the Plastics business group.

<u>Brand name</u>	<u>Applications</u>	<u>Principal users</u>
<i>Amorphic thermoplastics</i>		
<i>Polycarbonates:</i>		
Makrolon . . . . .	Optical data carriers, lighting, telecommunications, computers, printers, fax machines, film, sheets, panels, dialyser, oxygenators, spectacles and lenses, household and consumer goods	Electrical engineering and electronics, optical sector, data processing, lighting industry, traffic and transport, domestic sector, medical equipment, automotive, consumer, sheet and appliance industries
Apec . . . . .	Automotive electric Lighting Electrical engineering Medical equipment	Automotive industry Lighting industry Electrical industry Health care sector
<i>Styrenics:</i>		
Lustran . . . . .	Automotive components	Automotive industry
Novodur . . . . .	Housings for data processing equipment, AV equipment, business machines Electrical powered tools Garden equipment Cosmetic containers Refrigerator liners Sanitary applications Camping articles	Electrical/electronics industry Medical sector Toy industry Leisure industry Household/furniture industry Cosmetic industry
Bayblend . . . . .	Vehicle interiors and exteriors	Automotive industry
Triax . . . . .	Computers, printers, fax machines Telecommunication networks Electrical/electronic components Furniture Garden equipment Sporting goods Medical equipment	Information technology Electrical/electronic industry Leisure industry Furniture industry Sport sector Medical sector
Centrex . . . . .	Automotive exterior parts	Automotive industry

<u>Brand name</u>	<u>Applications</u>	<u>Principal users</u>
<i>Fabricated products:</i>		
Makrofol .....	Nameplates/labels	Technology sector
Bayfol .....	Identity cards	Automotive sector
	Panels	Sport/leisure industry
	Instrument panel components	
	Overlay films	
	Decorative films	
	Top layers	
Solid sheet .....	In-mould decoration	
	Construction	Construction industry
Multi-wall sheet .....	Safety	Agriculture
Corrugated sheet.....	Greenhouses	Advertisement sector
	Displays	Transportation sector
	Signs	
	Transportation	
<i>Semi-crystalline polymers</i>		
<i>Semi-crystalline thermoplastics:</i>		
Durethan .....	Automotive engine parts	Automotive industry
	Automotive structural components	Electrical/electronics industry
	Electrical powered tools	Packaging sector
	Mechanical engineering	Household/furniture sector
	Films and bottles	Sports and leisure sector
	Household goods	
	Seating furniture	
	Sporting goods	
Pocan .....	Connectors and housings for automotive and electronic/electrical parts; electrical and lighting equipment; optical fiber cable tubing	Electrical/electronics industry; automotive industry; sports and leisure sector
<i>Thermoplastic polyurethane:</i>		
Desmopan .....	Film	Technology sector
Texin .....	Hoses	Mechanical/plant engineering sector
	Cable sheathing	Sports/leisure industry
	Cords	Automotive industry
	Linings	
	Dashboards	
	Ski boots	
	In-line skates	
	Sport shoe soles	

*Amorphic thermoplastics*

*Polycarbonates*

Polycarbonates are plastics that are highly stable across a wide temperature range. Transparent forms of polycarbonate offer outstanding light transmission and good optical properties. Polycarbonates almost completely dominate the field of optical data storage media, such as recordable CDs and DVDs, and are widely used throughout the electrical/electronics segments in general. The construction industry is also a major user of polycarbonates. Since 1993, growth rates have been significantly above those for other engineering thermoplastics.

*Makrolon*<sup>®</sup> is our leading polycarbonate product. Its key characteristics include high transparency, heat resistance and toughness. It can be both sterilized and recycled. Our other polycarbonates include the *APEC*<sup>®</sup> range.

### *Styrenics*

Styrenics have been on the market for 40 years. Users have found them a reliable family of plastics for a wide variety of applications, particularly in the automotive and medical sectors. Styrenics lend themselves well to blending with other forms of plastic. Blend technology can transform a palette of a few basic polymers into a wide range of new, advanced polymers with tailored properties, creating user-specific solutions and, in many cases, cost advantages as well.

*Novodur*<sup>®</sup>, an acrylonitrile/butadiene/styrene copolymers, is our leading styrenic. Other styrenics include *Lustran SAN*<sup>®</sup>, *Bayblend*<sup>®</sup>, *Triax*<sup>®</sup> and *Centrex*<sup>®</sup>.

### *Fabricated Products*

We also produce plastic films and sheeting with a broad range of characteristics for a wide variety of applications. These materials consist of polycarbonate, polycarbonate blends and mixtures of polycarbonates with other engineering thermoplastics. We market these materials under trade names including *Makrofol*<sup>®</sup>, *Bayfol*<sup>®</sup>, *Makroform*, *AX-PET*, *Carbolux*, *Carbolite*, *Vivak*, *Laserlite+* and *Solartuff*.

### *Semi-crystalline polymers*

#### *Polyamides*

Polyamides are tough, strong, high-performance plastics. They are resistant to chemicals and can often replace metal and other materials in applications. Introduced over 50 years ago, they are still in high demand as engineering plastics. Their high variability and the many ways in which users can modify them with fillers, elastomers and additives have also earned them the number two position among technical plastics. The most important consumers of polyamides are the automotive, food packaging and electrical/electronic industries. In addition, we use these materials in producing halogen-free flame retardant products. In the automotive field alone, applications of polyamides range from such long-established uses as coolant casings, hubcaps, door handles, external mirrors, sun-roofs and central electrical systems to more recent developments, such as tail pipes, vehicle electronics and ABS systems. In addition, we believe that the newly emerging plastic/metal hybrid technologies will create significant new potential uses for polyamides in automobile front ends, seats and instrument panels. Two polyamides, PA 6 and PA 66, together account for 90 percent of all polyamides consumed.

*Durethan*<sup>®</sup> is our range of engineering thermoplastics based on PA 6, PA 66 and their copolyamides. The products in our *Pocan*<sup>®</sup> range are semicrystalline thermoplastic polyesters that show high resistance to chemicals, heat distortion and stress cracking.

#### *Thermoplastic polyurethanes*

Thermoplastic polyurethanes, or TPUs, belong to the high-performance thermoplastic elastomers family. TPUs came onto the market in the early 1960s. Since then, the variety of applications for TPUs has grown steadily. Historically, TPUs have had a tendency to yellow upon exposure to light, a disadvantage in some applications. Light-stable TPU is a recent development; small quantities are in commercial use, such as in the manufacture of glass laminating film and special coatings. Thermoplastic polyurethanes fill the gap between conventional rubber and rigid thermoplastics. A key TPU property is the high abrasion- and wear-resistance of TPU articles. TPU's abrasion- and wear-resistance properties are substantially superior to those of abrasion-resistant rubber compounds. Its wet abrasion resistance surpasses even that of most metals. In addition, thermoplastic polyurethanes are an excellent alternative to polyvinyl chloride. Because PVC was less expensive, in the past few users chose TPU over PVC. Recent controversies involving the environmental and health risks associated with PVC, however, could open up new opportunities for halogen-free TPUs of the same hardness

class as PVC. We believe that legal constraints or voluntary limitations on the use of PVC may help make TPU a preferable alternative to PVC despite its higher cost.

We market our thermoplastic polyurethanes under the trademarks *Desmopan*<sup>®</sup> in Germany and other EU countries and *Texin*<sup>®</sup> in the United States.

### **Markets and Distribution**

We sell the products of our Plastics business group to some 6,500 customers worldwide. These customers include injection-molding operators and a large number of plastic-component manufacturers, whose products are overwhelmingly used in the automotive, electrical, electrical engineering, construction, data technology, medical and leisure fields. We estimate the total value of our market at €25 billion. According to Bayer internal market studies, we ranked second in the world market for technical thermoplastics in 2000, excluding fabricated products.

The business group's external sales, by region and total, for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe . . . . .	1,574	1,352	1,323
North America . . . . .	994	768	698
Asia/Pacific . . . . .	730	495	345
Latin America/Africa/Middle East . . . . .	<u>222</u>	<u>155</u>	<u>138</u>
Total . . . . .	<u>3,520</u>	<u>2,770</u>	<u>2,504</u>

The following table sets forth the business group's sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Amorphous polymers (polycarbonates, styrenics and structural fabricates) . . . . .	2,918	2,247	1,984
Semi-crystalline polymers (polyamides, polyesters and thermoplastic polyurethanes) . . . . .	<u>602</u>	<u>523</u>	<u>520</u>
Total . . . . .	<u>3,520</u>	<u>2,770</u>	<u>2,504</u>

The market for engineering thermoplastics is a global one, characterized by constant pressure on margins and growing price competition due to globalization, consolidation and increasing customer purchasing power. Outside the polycarbonates market, the primary current driver of competition is price, followed by global supply capability, quality and technical service. In addition to competitive pricing, our major customers expect global presence, technical support and service and reliable delivery. In order to meet these demands and to achieve leadership in both cost and technology, we are extending our production and marketing presence in our key regions and markets.

We expect the world market for the relevant thermoplastics to grow by about 6 percent over the medium term. Demand is heavy in all areas, while increasing amounts of thermoplastics in vehicles have led to growing sales to the automotive sector. Nevertheless, the area of most rapid growth remains information and communication technology, such as mobile phones, digital cameras, MPEG players and personal digital assistants, with growth rates exceeding 10 percent.

Despite continually growing demand, overcapacity remains a problem for manufacturers worldwide. Although several producers have cancelled or postponed expansion plans, capacity continues to increase. We expect the industry's consolidation process, which began several years ago, to continue, with large-scale facilities in strategic regions and using new low-cost technologies replacing smaller, increasingly obsolete facilities.

Bayer does not produce basic petrochemicals. The principal raw materials of our Plastics business group are styrene, butadiene, acrylonitrile, acetone, phenol, cyclohexane, butandiol and dimethylterephthalate. Because

many of these materials derive from petrochemicals, we obtain them almost exclusively from third parties. We do, however, obtain chlorine for our polycarbonates both from within the Bayer Group and externally. We produce Bisphenol-A (another key polycarbonate component) internally. Nevertheless, our costs are affected by fluctuations in raw material prices, driven in turn by fluctuations in oil prices. We typically procure our third-party raw materials under long-term, “as-if-producer” contracts that establish cost-based pricing formulas, listing raw material price fluctuation to the effects of fluctuation in the price of crude oil and energy.

We market substantially all our plastics products through regional distribution channels, supported by regional competence centers and by our head office. In addition, we are coming to rely increasingly on e-commerce. For example, together with such other leading thermoplastics suppliers as BASF, Dow, DuPont and Celanese/Ticona, Bayer created OMNEXUS, a neutral market place offering products and services across the full spectrum of technical thermoplastics business, from injection molding to extrusion.

Our most significant global competitor in all regions is General Electric Plastics, the market leader with a share of approximately 17 percent. We also compete with several other companies, most notably BASF, Dow and DuPont. Particularly in the Far East, local competitors with more limited product portfolios, such as Teijin, Chimei, Idemitsu, Mitsubishi and LG, are also important.

**Research and Development**

The Plastics business group focuses its research and development activities on process development in polycarbonates, styrenics and semi-crystalline thermoplastics. We are introducing a new poly-carbonate-manufacturing process to mass production, standardizing worldwide processes for the manufacture of emulsion ABS, and furthering the development of the PA 6 polymerization process. In product development, we focus on consolidating our product portfolio, developing new blends, refining optical data carriers and modifying the surface of plastics with coatings.

This business group’s primary research and development facilities are located in Krefeld and Dormagen, Germany; Pittsburgh, Pennsylvania; Springfield, Massachusetts; and Moxi, India.

We currently have seven products in late stages of development. We expect to launch these products during 2002. These products are:

<u>Product/Brand name</u>	<u>Application</u>	<u>Status</u>
Surface-modified Makrolon . . . . .	Automotive, construction	Start commercialization
Melt polycarbonate . . . . .	Optical/ophthalmic lenses	Start commercialization
Bayblend FR 3000 series . . . . .	Business machines/information technology	Start commercialization
Durethan with structural viscosity . . .	Automotive	Start commercialization
Reinforced Pocan blends . . . . .	Automotive exterior parts	Start commercialization
Structural hybrid components . . . . .	Automotive	Start commercialization
Light-stable Desmopan . . . . .	Instrument panels	Start commercialization

**Rubber**

**Overview**

As a leading supplier of raw materials, our Rubber business group is an important partner to the rubber and tire industry. Our portfolio comprises synthetic rubber, rubber chemicals and modifiers for the plastics industry, along with special preparations and processing chemicals from our subsidiary Rhein Chemie and latices from PolymerLatex, a joint venture with Degussa AG. We are currently contemplating divesting Rhein Chemie as well as our interest in PolymerLatex.

## Products

The following table lists the major products of the Rubber business group.

<u>Brand name</u>	<u>Applications</u>	<u>Principal users</u>
<i>Solid Rubber</i>		
Buna CB, Taktene . . . . .	Tires, modifiers for plastics	Tire and plastics industry
Buna SL, Buna VSL, Krylene, Krynox, Polysar S . . . . .	Tires	Tire industry
Bayer Butyl, Bayer Bromobutyl, Bayer Chlorobutyl	Tire inner liners and inner tubes	Tire industry
Baypren, Perbunan NT, Krynac, Buna EP, Therban, Levapren, Levamelt . . . . .	Non-tire automotive components; electrical and mechanical engineering; construction	Automotive industry
<i>Rubber Chemicals</i>		
Vulkanox, Vulkazon, Vulkacit, Vulkalent, Vulkanol, Vulkasil, Renacit, Cohedur, Zinkoxyd aktiv, Emulvin, Coagulant . . . . .	Tires, non-tire automotive components, electrical and mechanical engineering, shoes, construction, chemicals	Tire industry Automotive industry Latex industry
<i>PolymerLatex</i>		
Bunatex, Baystal, Lipaton, Plectol, Perbunan N-Latex, Baypren-Latex . . . . .	Construction, textiles, paper, carpets, molded foam, dipping goods, fleece materials	Building, textile, paper and shoe industries
<i>RheinChemie</i>		
Rhenogran, Rhenofit, Aktiplast, Rhenosin, Rhenodiv, Antilux . .	Tires, automotive, shoes, cables, other technical rubber goods	Tire industry Automotive industry

## Solid Rubber

We produce a wide range of synthetic rubber products. Our customers may process our rubber materials into end products, or blend them with other synthetic rubbers or natural rubber to form additional compounds. Our range includes:

- butadiene rubbers (*Buna<sup>®</sup> CB* and *Taktene<sup>®</sup>*),
- butadiene-styrene copolymers (*Buna<sup>®</sup> SL*, *Buna<sup>®</sup> VSL*, *Krylene<sup>®</sup>* and *Krynox<sup>®</sup>*),
- butyl and halogenated butyl rubbers (*Bayer Butyl*, *Bayer Bromobutyl* and *Bayer Chlorobutyl*),
- chloroprene rubber (*Baypren<sup>®</sup>*),
- acrylonitrile-butadiene rubbers (*Perbunan<sup>®</sup> NT* and *Krynac<sup>®</sup>*),
- ethylene-propylene copolymers and terpolymers (*Buna<sup>®</sup> EP*),
- hydrogenated nitrile rubber (*Therban<sup>®</sup>*), and
- ethylene vinyl-acetate copolymers (*Levapren<sup>®</sup>*, *Levamelt<sup>®</sup>*).

Our products offer customers an array of varying characteristics, including workability, hardness, flexibility and wear, heat and chemical resistance, to suit their specific needs. The tire industry is a major user of our rubber products. Our rubber products also serve a wide variety of other applications, from hoses, cable and wire sheathing through footwear soles to golf balls.

### *Rubber Chemicals*

We produce a broad range of chemical products for use in the rubber compounding and production process. These products help rubber producers to control the speed of vulcanization, to protect rubber products against degradation through heat, oxidation and chemicals, and to alter the consistency and properties of rubber products. We market these chemicals under a number of trade names, including *Vulkanox*®, *Vulkazon*®, *Vulkacit*®, *Vulkaleni*®, *Vulkanol*®, *Vulkasil*®, *Renacit*®, *Cohedur*®, *Zinkoxyd aktiv*® and *Emulvin*®.

### *PolymerLatex*

Our PolymerLatex division produces an extensive range of high-grade polymer dispersions for a wide variety of applications. Its products include *Bunatex*® for carpets and molded foam, *Baystal*® for carpets, paper coating and footwear, *Lipaton*® for paints and coatings, *Plectol*® for paints, textiles and pressure sensitive adhesives and *Perbunan*® *N-Latex* and *Baypren*® *Latex* for dipping goods and fleece materials.

### *Rhein Chemie*

The products of our subsidiary, Rhein Chemie, include *Rhenogran*®, *Rhenocure*®, *Poly-Dispersion* and *Rhenofit*® (predispersed, polymer-bound chemicals and additives for the rubber processing industry), *Aflux*®, *Aktioplast*® and *Rhenopren*® (processing promoters that make it easier to manufacture and process rubber compounds), *Rhenodiv*® and *Levaform*® (compound and mold release agents, tire paints and bladder coatings), *Urepan*® and *Rhenoblend*® (specialty polymers) and *Antilux*® (anti-sun check waxes and antiozonants).

### *Markets and Distribution*

The main markets for the Rubber business group are Europe, which accounts for some 50 percent of our sales, and North America, which accounts for 30 percent of sales. The tire and automotive industries generate about 60 percent of the business group's revenue, both from new car production and replacement tires. We rank number one in the synthetic rubber market. (Source: International Institute of Synthetic Rubber Producers). According to our internal market research, we are number two in rubber chemicals.

The business group's sales by region and total for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe .....	1,033	920	942
North America .....	762	559	556
Asia/Pacific .....	367	275	225
Latin America/Africa/Middle East .....	<u>134</u>	<u>103</u>	<u>104</u>
Total .....	<u>2,296</u>	<u>1,857</u>	<u>1,827</u>

The following table sets forth the business group's sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Solid Rubber .....	1,468	1,168	1,149
Rubber Chemicals .....	314	280	278
PolymerLatex .....	184	156	158
Rhein Chemie .....	318	230	209
Other .....	<u>12</u>	<u>23</u>	<u>33</u>
Total .....	<u>2,296</u>	<u>1,857</u>	<u>1,827</u>

Our Rubber business group is not subject to significant seasonality.

In procuring many of our chemical raw materials, we benefit from integration with the other companies of the Bayer Group.

We regard the following companies as the major competitors of our Rubber business group:

- *Solid Rubber*: Goodyear, Exxon, Enichem, DOW and Nippon Zeon;
- *Rubber Chemicals*: Flexsys and Crompton;
- *PolymerLatex*: DOW, BASF and Rhodia; and
- *Rhein Chemie*: Lubrizol and M.A. Hanna.

### ***Research and Development***

The Rubber business group focuses its research and development activities on creating new products, improving processing technology and improving testing methods. The business group's primary research and development facilities are located in Leverkusen and Dormagen, Germany, and Sarnia, Ontario.

Because a substantial portion of our business comes from the automotive sector, anticipating and meeting that sector's needs is a key priority of our research and development effort. In the tire field, we concentrate on improvements in rolling resistance, wet grip and wear. In the non-tire automotive industry, the primary goal is developing rubber parts that have longer durability at higher operating temperatures.

We currently have five products in late stages of development. We expect to launch these products in 2002. These products are:

<u>Product/Brand name</u>	<u>Application</u>	<u>Status</u>
Therban HT .....	Heat stabilizing system	Field test through end users
Therban XT .....	Improved hot abrasion and adhesion	Sampling to customers and initial sales
Therban LT .....	Improved low temperature performance for seals and belts	Field test through end users and initial sales
Vulcuren .....	Natural Rubber/Truck tire	Trial product, sampling to customers
Modified S-SBR .....	Tire tread	First plant trials

## POLYURETHANES, COATINGS & COLORANTS

### Overview

Our Polyurethanes, Coatings & Colorants segment comprises the Polyurethanes and the Coatings and Colorants business groups. The following table shows the segment's performance for the last three years.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
External net sales . . . . .	5,076	3,904	3,629
Percentage of total sales (continuing operations) . . . . .	17.7	16.5	16.8
Intersegment sales . . . . .	462	482	546
Operating result before exceptional items . . . . .	518	657	604
Percentage of total operating result (continuing operations) . . . . .	14.6	21.0	19.2

No individual product is material to the revenue of the segment as a whole.

### Segment Strategy

We plan to hold Polyurethanes, Coatings & Colorants together and the Plastics & Rubber segment through a wholly owned direct subsidiary of Bayer AG that will be responsible for all Bayer's Polymers businesses. See — *Business Overview*.

Our goal is to continue expanding our global leadership in high-value added polymers. By acquiring Lyondell's polyol business in 2000, we achieved a well-balanced portfolio for polyurethane raw materials. After fully integrating this new asset, we will focus on capacity expansion in Asia, where we see opportunities for above-average growth.

In 2000, the Polyurethanes, Coatings & Colorants segment spent €359 million on capital expenditures. As a leading polymers manufacturer, we aim to exploit the full growth potential of polymeric materials through innovative research and development. We place particular emphasis on developing new and improved production processes for our polymers and their base products, improving our product range and opening up new areas of application.

### Polyurethanes

#### Overview

Our Polyurethanes business group focuses on the development, production and marketing of raw materials, formulations and systems used in producing a wide variety of polyurethane polymers for a broad range of industrial and consumer applications.

#### Products

Polyurethanes are polymers formed through the reaction of two liquid chemicals: an isocyanate — typically diphenylmethane diisocyanate (MDI) or toluene diisocyanate (TDI) — and a polymeric alcohol such as polyether polyols. We produce a range of different isocyanates and polyether polyols. The characteristics of a given polyurethane depend on both the raw materials used as well as the precise proportion of each used in the mix.

Our customers use our isocyanates or polyether polyols, or both, to create their own specific polyurethane formulations. In addition, upon request we design and evaluate custom blends to meet specific customer requirements. When we have perfected a formulation for a specific end product, we deliver the components to the customer, which then combines them at its manufacturing site. The customer receives a ready-to-use two-component system. The precise formulation of each custom blend is proprietary.

Typical applications for which our customers use our polyurethane raw materials include:

<u>Product</u>	<u>Brand names</u>	<u>Applications</u>
Flexible polyurethane foams . . . . .	Desmodur <sup>®</sup> , Desmophen <sup>®</sup> , Arcol <sup>®</sup> , Bayfit <sup>®</sup> , Ultracel <sup>®</sup> , Hyperlite <sup>®</sup> , Stylex <sup>®</sup>	Furniture, mattresses, automotive components, textiles, packaging, technical articles
Rigid polyurethane foams . . . . .	Desmodur <sup>®</sup> , Desmophen <sup>®</sup> , Baymer <sup>®</sup> , Baytherm <sup>®</sup> , Baynat <sup>®</sup>	Construction, refrigeration, appliances, technical insulation, sports equipment, automotive components
Polyurethane integral skin foams . .	Arcol <sup>®</sup> , Desmodur <sup>®</sup> , Desmophen <sup>®</sup> , Baydur <sup>®</sup> , Bayflex <sup>®</sup> , Bayflex <sup>®</sup> Footwear, Acclaim <sup>®</sup>	Machine and apparatus engineering, furniture, electrical and electronic equipment, sports and leisure equipment, construction, automotive components, shoes and packaging
Polyurethane filling foams . . . . .	Desmodur <sup>®</sup> , Bayfill <sup>®</sup>	Automotive components
Polyurethane elastomers . . . . .	Desmodur <sup>®</sup> , Arcol <sup>®</sup> , Vulkollan <sup>®</sup> , Baytec <sup>®</sup> , Desmoflex <sup>®</sup> , Acclaim <sup>®</sup>	Machine and apparatus engineering, automotive components, construction, transportation, electrical equipment, shoes, sports and leisure equipment, sanitation products
Filled/reinforced polyurethane systems . . . . .	Baytec <sup>®</sup> , Baypreg <sup>®</sup> , Baydur <sup>®</sup> , Bayflex <sup>®</sup>	Machine and apparatus engineering, automotive components, construction, transportation, electrical equipment, shoes, sports and leisure equipment, sanitation products
Polyurethane and PIR casting resins . . . . .	Baydur <sup>®</sup> , Baymidur <sup>®</sup> , Baygal <sup>®</sup> , Blendur <sup>®</sup>	Electrical and electronic equipment, tools
Binders . . . . .	Desmodur <sup>®</sup>	Construction, furniture, noise and thermal insulation of plant, sports equipment, foundry applications

***Markets and Distribution***

Europe and the NAFTA nations remain the primary markets for our Polyurethanes business group, although Asia is growing in importance. We estimate global annual growth rates in the polyurethane raw materials market at 5 to 7 percent for MDI, 2 to 4 percent for TDI and 4 to 6 percent for polyether polyols. We believe that we rank number one in all three sectors of the market worldwide.

The Polyurethanes business group's sales by region and total for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe .....	1,218	984	999
North America .....	1,175	781	699
Asia/Pacific .....	394	198	165
Latin America/Africa/Middle East .....	343	212	213
Total .....	<u>3,130</u>	<u>2,175</u>	<u>2,076</u>

The following table sets forth the business group's sales for the last three years, broken down by product type.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
TDI .....	583	446	435
MDI .....	980	886	817
Polyethers .....	1,226	529	524
Others .....	341	314	300
Total .....	<u>3,130</u>	<u>2,175</u>	<u>2,076</u>

For our customers' applications, there are no significant man-made or natural substitute materials for flexible polyurethane foams. Polystyrenes offer potential competition to rigid polyurethane foams where the application requires materials in sheet or block form only. Polyurethane elastomers do compete with other thermoplastic materials; decisive factors are costs of the finished part, physical performance and fit with the production mix at the customer's site.

In the automotive area, there is constant competition between polyurethanes and other polymers in many applications, except for seating and steering wheels, due to required physical properties, costs, design or functional requirements.

On a worldwide level, the Polyurethane business group's sales are not subject to significant seasonality. On the regional level, business can display indirect seasonality where, for example, revenue depends on such seasonal industries as construction and other outdoor applications. Because polyurethane raw materials are easily transportable, however, we are able to ship materials for use in other regions in the event of regional overcapacity.

The basic raw materials for isocyanates are toluene and benzene. The main raw material for polyether polyols is propylene oxide, a derivative of propylene. Toluene, benzene and propylene are common petrochemical products that we typically purchase on the open market, as Bayer generally does not produce petrochemicals. All of these raw materials are readily available commodities, but they are subject to price fluctuation driven by, for example, changes in world oil prices. With Bayer's recent acquisition of Lyondell's polyol business, however, we have secured access to low-cost propylene oxide from Lyondell's plants.

The Polyurethanes business group sells its products directly to customers and, to a much smaller degree, through so-called "system houses" and traders. System houses typically serve smaller-volume customers and may be either independent companies or the subsidiaries of larger companies. It is our strategy to systematically establish our own regional system houses.

To further increase efficiency along the supply chain, we are establishing regional supply chain centers, replacing country-specific organizations, to fill orders. Ultimately, we plan to have the regional supply chain centers balance worldwide supply with regional demand.

Our main competitors are DOW, BASF and Huntsman.

**Research and Development**

The Polyurethanes business group focuses its research and development activities on:

- reducing the thermoconductivity of rigid polyurethane foams;
- halogen-free flame retardants;
- halogen-free blowing agents;
- reduction of volatile components in polyurethane raw materials;
- new applications for polyurethanes and polyurethane raw materials; and
- optimizing costs and improving quality in production processes.

The business group’s primary research and technical development facilities are located in Dormagen and Leverkusen, Germany, Pittsburgh, Pennsylvania, and South Charleston, West Virginia.

The main field of innovation in the polyurethane field is currently the development of new or improved polyether polyol types and blends as well as new processes. The business group concentrates its research and development efforts with respect to aromatic isocyanates on improving existing products and technologies for their manufacture.

We currently have various polyether polyol products in late stages of development. We expect to launch these products during 2002. These products are:

<u>Product/Brand name</u>	<u>Application</u>	<u>Status</u>
IMPACT polyols, continuous process . . . .	Flexible foam, integral skin foams, elastomers	Market introduction

**Coatings and Colorants**

**Overview**

Our Coatings and Colorants business group develops and markets a wide variety of products that serve as raw materials for lacquers, coatings, sealants and adhesives and colorants for plastics and building materials.

**Products**

The following table lists the major products of the Coating and Colorants business group.

<u>Brand name</u>	<u>Applications</u>	<u>Principal users</u>
<i>Resins</i>		
Desmophen . . . . .	Two component system	Automotive, furniture and plastics industries
Bayhydrol . . . . .	Water-based two component system	Automotive, furniture and plastics industries
<i>Aliphatic isocyanates</i>		
Desmodur N . . . . .	Two component system	Automotive and plastics industries
Bayhydur . . . . .	Water-based two component system	Automotive and plastics industries
Creelan . . . . .	Hardener for powdered lacquers	Automotive industry
<i>Aromatic isocyanates</i>		
Desmodur L . . . . .	Hardener for lacquers	Furniture and woodworking
<i>Special raw materials</i>		
Impranil/Imprafix . . . . .	System for coating textiles	Textile industry

<u>Brand name</u>	<u>Applications</u>	<u>Principal users</u>
<i>Adhesive raw materials</i>		
Dispercoll . . . . .	Water-based adhesive	Shoe, furniture and construction industries
Desmocoll . . . . .	Adhesive for melting	Shoe, packaging and furniture industries
<i>Colorants</i>		
Bayferrox . . . . .	Inorganic colorant	Lacquer and construction industries
Macrolex . . . . .	Organic colorant	Plastics industry

*Resins and Hardeners*

Lacquers are formed through the combination of a resin with a hardener. We offer our customers a variety of resins (e.g., *Desmophen*<sup>®</sup> and *Bayhydrol*<sup>®</sup>) and hardeners (e.g., *Desmodur L*<sup>®</sup>, *Desmodur N*<sup>®</sup>, *Bayhydur*<sup>®</sup>, and *Crelan*<sup>®</sup>). The variety of resins and hardeners in our product palette enables us to provide custom-tailored solutions for a number of different applications. For example, aliphatic isocyanate hardeners like Desmodur N produce lacquers that are extremely weatherfast, and therefore suitable for the automotive industry. Desmodur L, an aromatic isocyanate, produces lacquers well suited for use in the furniture and wood industries and other areas where weatherfastness is not the deciding factor. Our tailored solutions offer high technical quality together with environmental sustainability. For example, our water-based two-component polyurethane lacquer system Bayhydrol/Bayhydur received the Presidential Green Chemistry Challenge Award from the U.S. Environmental Protection Agency in 2000.

*Special raw materials*

Our special raw material unit produces such specialty products as *Impranil*<sup>®</sup>/*Imprafix*<sup>®</sup>, our polyurethane coating systems for textiles.

*Adhesive raw materials*

*Dispercoll*<sup>®</sup> and *Desmocoll*<sup>®</sup> are our raw materials for adhesives. Their primary users are shoe manufacturers, though we also have customers from the automotive, furniture and building industries.

*Colorants*

*Bayferrox*<sup>®</sup> is our iron oxide-based colorant, available in a variety of colors for a wide range of uses. For example, it imparts the characteristic reddish tone of roofing tiles. Bayferrox is well-known in the building industry, and gaining increasing popularity in the paint and lacquer industry as well.

**Markets and Distribution**

Our Coatings and Colorants business group is a major producer of raw materials for lacquers and adhesives as well as of organic and inorganic dyes and pigments. The primary ultimate end-users of our products are the automotive, furniture and plastics industries; other users include the textile, shoe, paint and building industries.

The business group's sales by region and total for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe . . . . .	934	886	827
North America . . . . .	523	433	409
Asia/Pacific . . . . .	311	257	177
Latin America/Africa/Middle East . . . . .	178	153	140
Total . . . . .	<u>1,946</u>	<u>1,729</u>	<u>1,553</u>

The following table sets forth the business group's sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Resins . . . . .	211	185	171
Aliphatic isocyanates . . . . .	543	469	440
Aromatic isocyanates . . . . .	223	199	189
Special raw materials . . . . .	161	141	136
Adhesive raw materials . . . . .	240	212	188
Colorants . . . . .	<u>568</u>	<u>523</u>	<u>429</u>
Total . . . . .	<u>1,946</u>	<u>1,729</u>	<u>1,553</u>

Our revenue is not subject to significant seasonality over the course of the typical year. Some of the individual markets and regions that we serve experience seasonal fluctuation, such as the building industry during the winter months or southern Europe during the summer. All markets and regions taken as a whole, however, produce relatively constant revenue throughout the year.

Temporary fluctuations in prices, such as the price of crude oil, can have a significant effect on the cost of our raw materials. Nevertheless, because of our broadly diversified supplier base and raw material mix, we are not significantly dependent on any single raw material or supplier of raw materials.

We coordinate and carry out our sales and marketing from our head office in Leverkusen, Germany, as well as through our various national subsidiaries. In addition, e-commerce is becoming increasingly important in our marketing activities. Our key account managers handle our globally active major customers directly.

Especially important are our Centers of Expertise. Here we work together with our customers to further improve the quality of our products and the manufacturing processes of the customers who use them.

We regard the following companies as the chief competitors of our Coatings and Colorants business group:

- *Lacquer hardeners:* Solutia;
- *Aliphatic isocyanates:* Rhodia;
- *Organic pigments:* Ciba and Clariant; and
- *Inorganic pigments:* Rockwood, formerly known as Laporte.

### ***Research and Development***

The Coatings and Colorants business group focuses its research and development activities on developing new technologies for the production of our lacquer resins as well as our aliphatic and aromatic isocyanates that are environmentally friendly and sparing in their use of natural resources. We are also exploring ways of reducing the amount of solvent needed for our aliphatic isocyanates and optimizing the production of our iron-oxide based inorganic pigments.

The business group's primary research and development facilities are located in Leverkusen, Dormagen and Uerdingen, Germany and in Bushy Park, South Carolina and Pittsburgh, Pennsylvania.

## **CHEMICALS**

### **Overview**

The Chemicals segment comprises the Basic and Fine Chemicals, Specialty Products, Haarmann & Reimer, H.C. Starck and Wolff Walsrode business groups.

The following table shows the Chemical segment's performance for the last three years.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
External net sales .....	4,275	3,630	3,682
Percentage of total sales (continuing operations) .....	14.9	15.4	17.0
Intersegment sales .....	466	478	531
Operating result before exceptional items .....	442	411	484
Percentage of total operating result (continuing operations) .....	12.4	13.1	15.4

No individual product is material to the revenue of the Chemicals segment as a whole.

### Segment Strategy

The focus of our activities in the Chemicals segment is the further improvement of our margins. We aim to achieve this goal by streamlining our portfolio and by expanding our specialties, including by means of selected acquisitions. Recent examples are H.C. Starck's acquisition of the U.S.-based CSM Holding, Inc. as well as our acquisition of the sizing and strength paper chemicals business of Cytec Industries Inc., with which we expect to give our Specialty Products business group access to the U.S. market for process chemicals, thereby strengthening its global position in paper sizing agents. In keeping with our strategy of focusing on our core activities, we sold our subsidiary Bayer Solar GmbH to the SolarWorld group in October 2000. In December 2001, we announced plans to divest from the Haarmann & Reimer business group, as we no longer consider it to be part of the Chemicals segment core activities.

In 2000, the Chemicals segment spent €470 million on capital expenditures. We expect to invest €0.7 billion in the Chemicals segment in 2002. We plan to expand H.C. Starck's tantalum production in Germany, the United States and Asia. The segment's Wolff Walsrode business group plans to expand and modernize its German methylcellulose and nitrocellulose facilities.

The Chemicals segment's broad research and development spectrum stretches from fine chemicals for the electronics, pharmaceutical and agrochemical industries through fragrances and flavors to metal powders.

### Basic and Fine Chemicals

#### Overview

Our Basic and Fine Chemicals business group focuses on the development, manufacture and marketing of a wide range of basic chemicals as well as a growing range of high specification, customized fine chemicals for use in advanced industrial sectors such as life sciences.

"Basic" chemicals are produced in bulk quantities using few synthesis steps. Their raw materials are basic organic and inorganic substances (e.g. benzene or sodium chloride). We produce most of our basic chemicals in dedicated, continuous-process manufacturing plants using advanced technologies to optimize production and quality.

"Fine" chemicals are high added-value, multi-step synthesis products made to exact specifications by sophisticated and complex chemical synthesis processes. Fine chemicals comprise two broad categories:

- *multi-customer products*, or "catalogue" products sold to more than one customer; and
- *single customer products*, synthesized to the specifications of individual customers. Production of our single-customer fine chemicals often involves various levels of customer partnership as well as custom-tailored research and manufacturing; typical examples are life science intermediates for the pharmaceutical and agrochemical industries.

## Products

The following table lists the major products of the Basic and Fine Chemicals business group.

<u>Product</u>	<u>Applications</u>	<u>Principal users</u>
<i>Basic Chemicals</i>		
Benzene derivatives Toluene derivatives Aliphatic compounds	Basic chemicals for a wide range of industries and for use in many different applications, e.g. plastics, coatings, pigments, metallurgy	Chemical industry, automotive industry, building industry, etc.
Electrolysis products Inorganic acids		
<i>Fine Chemicals</i>		
Photographic chemicals	Photographic couplers	Photographic industry
Electronic chemicals	Chip planarization, conductive polymers	Electronics industry
Biodegradable polymers	Water treatment, detergents, cleaners	Specialty chemical industry
Life science intermediates	Pharmaceuticals, agrochemicals, animal health care	Life science industry

The product range of the Basic and Fine Chemicals business group contains approximately 2,700 individual products and articles for thousands of applications.

## Markets and Distribution

The business group's principal markets are industrial intermediates, custom manufacturing and fine chemicals for the photographic, electronics and life science industries.

The business group's sales, by region and total, for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe .....	622	560	611
North America .....	194	184	195
Asia/Pacific .....	129	86	63
Latin America/Africa/Middle East .....	61	56	76
Total .....	<u>1,006</u>	<u>886</u>	<u>945</u>

The following table sets forth the business group's sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Fine chemicals .....	286	190	201
Industrial intermediates .....	293	262	258
Life science intermediates .....	219	253	247
Inorganic basic chemicals .....	208	181	239
Total .....	<u>1,006</u>	<u>886</u>	<u>945</u>

Our Basic and Fine Chemicals business group is not subject to significant seasonality. Basic chemicals are more strongly influenced by fluctuations in raw material prices (e.g. toluene, benzene) than are fine chemicals, primarily because our basic chemical operations make greater use of petrochemicals, whose price is driven by changing oil prices.

We market the products of our Basic and Fine Chemicals business group primarily through Bayer's worldwide network of trading companies and agencies, with their specialized and experienced salespeople.

The business group's chief competitors in the various industrial intermediates segments are Solutia, Clariant, BASF and Tessenderlo. In various fine chemicals segments, we compete against Lonza, DSM, Clariant and Rhodia.

**Research and Development**

The Basic and Fine Chemicals business group's focus on research and development is twofold. In the field of bulk chemicals, our priority is the improvement of the manufacturing process of industrial intermediates. In life science intermediates, electronic chemicals and biodegradable polymers, we concentrate both on improving the manufacturing process and on developing new technologies and applications.

The business group's primarily research and development facilities are located in Leverkusen, Germany.

**Specialty Products**

**Overview**

Our Specialty Products business group develops and markets specialized compounds for use in various industries. In contrast to other chemicals business lines, these products typically display a high degree of "custom tailoring", being developed to address specific needs of their users. Specialty Products serves a broad range of industries, including textile and paper manufacture; leather, plastic and wood products; agricultural products; pharmaceuticals; and water treatment.

**Products**

Specialty Products offers its customers thousands of compounds designed to fulfil their specific needs. We have a variety of broad product families, each of which contains several product lines. Each product line represents numerous individual compounds that are related as to general chemical composition and area of function. The following table lists our major product families and the primary industries and applications they serve.

<u>Product families</u>	<u>Sample Product Lines</u>	<u>Primary uses</u>
Textile processing chemicals . . . .	Solvents, multiple repellents, softeners, binders, thickeners, wetting agents	Textile industry
Special dyes . . . . .	Special formulations of dyes and organic pigments	Ink-jet printing; paper coatings
Synthesis chemicals and additives . .	Sulfur and phosphorus-based chemicals	Pharmaceutical, agrochemical and cleanser manufacturers
Leather chemicals and dyes . . . . .	Tanning agents, dyes and pigments, finishing and coating products	Leather industry
Paper colorants, whiteners, processing chemicals . . . . .	Whiteners, dyes and pigments, strengthening and sizing agents	Paper industry
Polymer additives . . . . .	Flame retardants, plasticizers, additives	Plastics, PVC and polyurethane industries
Biocides and material protection . .	Wood protectants, disinfectants, industrial preservatives	Personal care products; food and beverage preservation; wood disinfection and industrial preservation

<u>Product families</u>	<u>Sample Product Lines</u>	<u>Primary uses</u>
Ion exchange resins and water treatments .....	Ion exchange resins; scale and corrosion inhibitors	Water and wastewater treatment and environmental protection; water cooling and heating systems; industrial cleaners; chemical synthesis

**Markets and Distribution**

The specialty chemicals market is a wide-ranging field of activity characterized by broad and heterogeneous market segmentation. Market participants range from small and medium-sized local suppliers to globally-active multinational concerns. In recent years this market has been undergoing a phase of consolidation, with participants exhibiting rapidly-changing organizational structures and product portfolios as a result of heavy mergers and acquisition activity. We believe that this business group's products are, because of their specialized nature, less subject to commoditization than many other chemical products, and that Specialty Products' profit margins are therefore less subject to downward pressure than are those of many other participants on the broader chemicals market.

Our Specialty Products business group is a globally active supplier of a broad range of high-performance specialty chemicals with a primary focus on individual customer requirements. The business structure is based on a worldwide network of local subsidiaries supported by regional centers, and production sites located in five continents. We have committed an experienced sales force, supported by specially trained technicians, to assist our customers in creating tailor-made solutions and to provide them with the commercial and technical assistance they require.

The business group's sales by region and total, for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	<u>(euros in millions)</u>		
Europe .....	607	565	560
North America .....	239	204	199
Asia/Pacific .....	257	210	192
Latin America/Africa/Middle East .....	<u>209</u>	<u>170</u>	<u>165</u>
Total .....	<u>1,312</u>	<u>1,149</u>	<u>1,116</u>

The following table sets forth the business group's external sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	<u>(euros in millions)</u>		
Textile, paper and leather chemicals .....	891	782	760
Polymer additives, material protection, ion exchange resins and water treatment chemicals .....	<u>421</u>	<u>367</u>	<u>356</u>
Total .....	<u>1,312</u>	<u>1,149</u>	<u>1,116</u>

The market for specialty chemicals is not generally subject to seasonality. Fluctuations in the business cycle and rising oil prices affect this market to a lesser degree than they affect the market for basic chemicals.

Specialty Products acquires a major part of the raw materials it uses internally, from other companies of the Bayer Group. There are typically multiple sources for the rest of its raw materials; we purchase these from suppliers worldwide, usually under long-term contracts. The Specialty Products business has not historically been affected by shortages; rising oil prices have thus far had a moderate impact on production cost.

We regard Avecia, BASF, Ciba Specialty Chemicals, Clariant, Rhodia and (except in leather chemicals; see below) Rohm & Haas as significant competitors across a number of the Specialty Products business group's activities. Additional competitors in specific areas are Atochem (synthesis chemicals and additives), TFL (leather dyes and chemicals), Hercules (paper dyes and chemicals), Great Lakes (polymer additives), Lonza (material protection) and Dow Chemical and PuroLite (ion exchange resins). We have entered into a world-wide cooperation with Rohm & Haas under which we have assumed marketing and logistics responsibilities for Rohm & Haas's leather chemical products.

**Research and Development**

The Specialty Products business group focuses its research and development activities on:

- new products for the textile industry;
- high-performance data storage media for information technology;
- improved ion exchange resins for waste treatment and metal recovery;
- new surface sizing agents for the paper industry;
- new biocides for material protection; and
- environmentally friendly formulations of products for the paper and leather industries.

The business group's primary research and development facilities are located in Leverkusen, Germany; Ede, the Netherlands; and Woodbridge, Connecticut.

We currently have approximately 160 products in late stages of development. We expect to launch these products during 2002 and 2003.

**Haarmann & Reimer**

**Overview**

Our Haarmann & Reimer business group develops and markets flavors, fragrances, aroma chemicals and cosmetic ingredients for use in beverages, foodstuffs, household goods, fine fragrances, personal care products and cosmetics. The primary operator of the business group is our wholly-owned subsidiary, Haarmann & Reimer GmbH, assisted by other members of the Bayer Group. As discussed under "Segment Strategy", we intend to divest from this business group as it is no longer considered part of the segment's core activities.

**Products**

The following table lists Haarmann & Reimer's major products.

<u>Products</u>	<u>Application</u>	<u>Principal users</u>
Flavors .....	Foodstuffs, beverages, confectionary products, chewing gum, pharmaceutical products	Food and beverage producers
Fragrances .....	Perfumes and related products, personal care products, household products,	Manufacturers of fragrances and personal care products
Aroma Chemicals and Cosmetic Ingredients		
Menthol .....	Oral care products, chewing gum, pharmaceuticals	Manufacturers of oral and personal care products; food producers
Neo-Heliopan .....	Sunscreens	Manufacturers of skin protection and cosmetic products

*Flavors* are compounds of natural and artificial ingredients to impart a flavor to, or enhance the flavor of, foodstuffs and beverages. Haarmann & Reimer offers several thousand individual products, most of them tailor-made for the requirements of its customers in the food and consumer goods industry. H&R's customer markets fall into five broad categories, along which lines H&R has organized its flavor business. These categories of flavorings, and the products for which they are primarily used, are:

- Sweet (confectionery products, chewing gum, baked goods, pharmaceutical products);
- Dairy (yogurt, ice cream, other dairy products);
- Savory (snacks, soups, sauces, other convenience foods);
- Beverages (soft drinks, fruit juices, alcoholic and other beverages); and
- Fillings (cakes, other baked goods).

*Fragrances* are compounds of natural and synthetic ingredients to determine or improve the aroma of consumer goods. H&R offers tens of thousands of fragrance products, most of them tailor-made for the requirements of its customers in the consumer goods industry. H&R organizes its fragrance business into four business units; these units, and the products in which their products are primarily used, are:

- Fine Fragrances (perfumes, eaux de toilette, extraits);
- Personal Care (soaps, shampoos, other body care products);
- Household (fabric care, air fresheners, surface care, other household goods); and
- Mint (including Optamint® and similar compounds) (toothpaste, other oral care products).

*Aroma Chemicals and Cosmetic Ingredients (ACC)*. Aroma chemicals are molecules with a distinctive fragrance and/or flavor. H&R sells aroma chemicals both internally to companies within the Bayer Group and to third parties for use in compounding flavors and fragrances. Cosmetic ingredients are organic chemicals that provide functionality and stability for cosmetics and other personal care products. The primary products of H&R's ACC business are:

- *Menthol Products*. H&R has produced menthol synthetically since 1974. Menthol gives a fresh, minty taste to such consumer goods as toothpaste, other oral care products, chewing gum, pharmaceuticals, personal care and household goods. H&R's major competitors in menthol production are Takasago, which produces synthetic menthol by a different process, and producers of natural menthol in China and India. The Bayer Group uses menthol internally, primarily in H&R's Optamint® compounds. H&R also markets its menthol products to third parties, including other producers of flavors and fragrances, consumer goods companies with their own compounding facilities, and pharmaceutical companies.
- *Neo Heliopan®*. H&R's Neo Heliopan® brand products are chemicals that act as sunscreen agents in such products as suntan lotion, bronzers and other cosmetic products. These chemicals protect the skin against the sun's rays for a certain length of time, as indicated by the individual product's "SPF factor". Major competitors of H&R's Neo Heliopan® product line are BASF and Hoffmann LaRoche.

### ***Markets and Distribution***

Haarmann & Reimer is active in the flavor and fragrance industry worldwide. Haarmann & Reimer GmbH and 20 other Bayer subsidiaries in 20 countries make up the business group. The business group also maintains sales offices in 29 further countries and has several sales agencies in smaller markets.

The business group's sales by region and total, for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe .....	377	363	377
North America .....	189	159	236
Asia/Pacific .....	136	111	81
Latin America/Africa/Middle East .....	<u>163</u>	<u>142</u>	<u>138</u>
Total .....	<u>865</u>	<u>775</u>	<u>832</u>

The following table sets forth the business group's sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Flavors .....	357	325	301
Fragrances .....	324	286	271
ACC .....	182	160	155
Other .....	<u>2</u>	<u>4</u>	<u>105</u>
Total .....	<u>865</u>	<u>775</u>	<u>832</u>

Haarmann & Reimer's business is not subject to significant seasonality.

The flavor and fragrance business demands a great variety of raw materials. Suppliers include chemical producers (BASF, Clariant, Rhodia), flavor and fragrance competitors (Firmenich, Givaudan, International Flavors and Fragrances), food companies (Danisco, Nestlé, Unilever) and producers and distributors of natural materials, mainly essential oils (Adrian, Polarome, Todd).

Approximately 25 percent by value of H&R's raw material purchases are natural products, therefore dependent on crops and their yields. We believe that H&R's major competitors face a similar risk.

H&R divides responsibility for sales and marketing among its 21 national companies and 29 national sales offices. It operates a global key account management for major international customers. The flavors and fragrances business is organized on regional lines in North America, Europe (also covering Africa and the Middle East) and South-East Asia (also coordinating Japan and Greater China). The ACC business is organized on global lines.

Our major competitors by size of turnover are International Flavors and Fragrances, Givaudan, Quest and Firmenich.

### ***Research and Development***

Haarmann & Reimer focuses its research and development activities on:

- the extension of the mint product line, making full use of in-house menthol technology;
- new molecules enhancing the flavor, aroma and quality of our customers' products;
- added-value benefits for existing products (e.g., longer-lasting presence on material or skin);
- biodegradable macrocyclic musk products; and
- controlled release of flavors and fragrances.

The business group's primary research and development facilities are located in Holzminden, Germany, Paris, France and Teterboro, New Jersey.

## H.C. Starck

### Overview

Our subsidiary H.C. Starck GmbH develops, produces and markets metallic and ceramic powders and mill products for various markets and applications. Headquartered in Goslar (Germany), H.C. Starck has subsidiaries and production sites in Germany, the United States, the United Kingdom, Canada, Japan and Thailand. In a major expansion in November 2000, H.C. Starck acquired CSM Holding, Inc., bringing the group seven new production sites, primarily for molybdenum and tungsten products. In November 2001 we also created H.C. Starck Ceramics GmbH & Co. KG from the merger of our existing industrial ceramics subsidiary with TeCe Technical Ceramics of Selb, Germany, which we had acquired in January 2001. In January 2002, we expect to concentrate all of Bayer's electronic chemicals business in the H.C. Starck business group.

### Products

The following table lists H.C. Starck's major products.

<u>Product</u>	<u>Applications</u>	<u>Principal users</u>
<i>Metallic products</i>		
Metal powders (tungsten, molybdenum, tantalum, niobium, rhenium, cobalt, nickel) and their compounds (carbides, oxides, silicides, nitrides, etc.)	Intermediates for hard metals, diamond tools, lamp filaments, production of mill products, capacitors and other electronic components, additives for optical lenses	Metal working and processing, metallurgical, tool, mill product, lighting, medical equipment, optics, chemical and electronics industries
Ampergy	Nickel hydroxide and cobalt suboxide intermediates for rechargeable batteries	Battery manufacturers
Molyform	Solid molybdenum disulfide lubricants	Lubricant and automotive industries
Lubriform		
Amperkat	Tungsten, molybdenum and nickel chemical catalysts	Chemical industry
Amperit	Thermal spray powder for thermal coatings, wear resistance, thermal insulation	Machine tool and aeronautical industries
Tungsten, molybdenum and tantalum mill products	Construction parts and wire	Chemical process, electronics, medical and aircraft industries
<i>Ceramic products</i>		
Ceramic powders	Intermediates for advanced ceramics	Advanced ceramics industry
Ceramic parts	Parts for machine construction and for handling molten metal	Machine tool and metal processing industry

### *Metallic products*

We produce a wide range of powders, mill products and semi-finished goods from such metals as tungsten, molybdenum, tantalum and niobium and their various compounds (e.g., carbides and oxides) for our industrial customers. Our customers use these products in making machine tools, electrical components, and a variety of specialized products, from medical devices through lamp filaments to optical lenses.

### *Battery intermediates*

*Ampergy*<sup>TM</sup> is our trade name for our nickel hydroxide and cobalt suboxide battery intermediates. Our customers in the electrochemical industry use Ampergy in making rechargeable batteries for modern communications devices as well as in large-scale industrial batteries.

### *Metallic chemical products*

*Molyform*<sup>®</sup> powders are our molybdenum disulfide solid lubricants. We market a range of powdered lubricants, such as boron nitride and tungsten disulfide, under the brand name *Lubriform*<sup>®</sup>. Our customers use these compounds in producing lubricants; in addition, the automotive industry uses Molyform in manufacturing brake linings.

*Amperkat*<sup>®</sup> is the trade name for our line of tungsten, molybdenum and nickel-based chemical catalysts. The chemical industry uses these products in, among other things, plastics production, hydration processes and the desulphurization of exhaust gases in coal-burning power stations.

### *Thermal spray powders*

*Amperit*<sup>®</sup> is the trade name of our line of thermal spray powders. These are metallic powders that our customers apply to their products with an intense flame, melting the powder. This process creates a protective layer whose characteristics (e.g., stress protection, thermal insulation) depend on the composition of the specific powder. Our Amperit customers are primarily from the machine tool and aeronautics industries.

### *Ceramic products*

Because of their resistance to aggressive substances, high mechanical durability and low weight, advanced high-performance ceramic materials are increasingly replacing metals in various industrial uses. We produce a broad range of component intermediates for use in the creation of these new advanced ceramics.

### ***Markets and Distribution***

The world tungsten market is marked by growing consumption. The hard metals market in the United States and Japan, however, is declining. Although the market for battery intermediates continues to be marked by disproportionate growth, extreme competition in nickel hydroxide is currently causing a dramatic price decrease. However, we do not believe this phenomenon will affect the growth of our newly-developed nickel dihydroxide and lithium nickelate intermediates.

Beginning in 1999, the mobile communications, computer, entertainment and automotive industries fuelled a rapid increase in demand for passive electronic components (e.g., capacitors and surface filters) made from tantalum, niobium and ceramic. To answer this increased demand, manufacturers increased their capacities significantly during 2000. This increase caused a corresponding increase in demand for our metallic powders, especially tantalum, during the first half of 2001. More recently, however, the worldwide electronics market has weakened significantly, leading to decreases in sales of these metals. We cannot predict when this market may recover, in part because the business cycle in the electronics industry is becoming ever shorter.

Although growth in the demand for ceramic products has been steady, strong competitive pressure has seriously depressed prices. We expect that the market for the ceramic parts produced by our subsidiary H.C. Starck Ceramics will continue to grow steadily across all segments for the foreseeable future, occasionally showing rapid growth.

The business group's sales by region, as well as its overall sales, for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe . . . . .	280	193	185
North America . . . . .	143	109	102
Asia/Pacific . . . . .	196	106	75
Latin America/Africa/Middle East . . . . .	<u>46</u>	<u>27</u>	<u>21</u>
Total . . . . .	<u>665</u>	<u>435</u>	<u>383</u>

China is the primary source for the raw materials for tungsten products. During some periods in the past, China limited production, causing a shortage of these materials. We have our own tungsten chemical and

recycling facilities, however, and are therefore only partly dependent on Chinese imports and do not bear the full brunt of raw material price increases. Our acquisition of CSM Holding substantially strengthened our procurement channels for molybdenum raw materials.

H.C. Starck has its own internal sales organization in Europe, the United States and Japan, its most important markets. In addition, we have liaison offices for Scandinavia, the Benelux countries, France and the United Kingdom that maintain direct contact with our customers. We also have a liaison office in Singapore for the South-East Asia region. We expect to open a new liaison office in Italy in early 2002. In other countries we either rely on the Bayer-wide sales organization or use third-party sales agents.

We regard the following companies as our chief competitors:

- *Metallic products:* Bergla, Cabot Group (including its associated joint ventures), Molymet, OMG, Osram Sylvania, Union Minière;
- *Battery intermediates:* OMG, Tanaka;
- *Chemical catalysts:* Activated Metals, Degussa, Grace;
- *Ceramic products:* ACC, Denky Kagaku, SB Boron; and
- *Thermal spray powders:* Praxair, Sulzer Metco, Woka.

### **Research and Development**

H.C. Starck focuses its research and development activities on innovative new products and system solutions for future markets.

For example, we are currently developing high-capacity tantalum and niobium powders as intermediates for capacitors and high-purity tantalum and niobium compounds for electroceramics and surface acoustic wave filters in computers and mobile telephones. H.C. Starck is also strongly committed to developing materials for the fast-growing markets for secondary batteries, fuel cells and other applications in the fields of energy storage and power generation. We expect that, by 2004, approximately 60 percent of our product palette will consist of new products.

The business group's primary research and development facilities are located in Germany, the United States (tantalum products) and Japan (tantalum products and battery intermediates).

We currently have four products in late stages of development, and expect to begin their launch in 2002. These products are:

<u>Product/Brand name</u>	<u>Application</u>
Niobium powder . . . . .	Capacitors
High-capacity tantalum powder . . . . .	Capacitors
Alternative (ferrous, nickel, cobalt) binders . . . . .	Diamond tools and hard metals
Lithium mixed metal oxide . . . . .	Li-ion and Li-polymer batteries

### **Wolff Walsrode**

#### **Overview**

The primary operator of our Wolff Walsrode business group is Wolff Walsrode AG, our wholly-owned subsidiary, assisted by other companies of the Bayer Group. The business group develops and markets cellulose derivatives, primarily for use as additives in building materials, as binders in industrial coatings and inks, and as additives in pharmaceuticals, food and health care products, as well as various plastic films for packaging and technical applications. With effect from June 1, 2001, we sold Covexx, an indirect subsidiary. Covexx had been responsible for our former Combithen and Combitherm food packaging film lines.

## Products

The following table lists Wolff's major products.

<u>Brand name</u>	<u>Applications</u>	<u>Principal users</u>
<i>Cellulose Derivatives</i>		
Walocel M . . . . .	Additive for building materials	Producers of tile adhesives, mortars, paints, plasters and others
Walsroder NC . . . . .	Binder for coatings and inks	Producers of industrial (nitrocellulose) coatings, inks for flexible packaging, nail varnishes and others
Walocel C . . . . .	Additive for pharmaceuticals, tooth care products, food and industrial uses and products	Producers of oral care products, food and drug compounders, textile, paper and oil drilling companies
<i>Plastic films</i>		
Walothern . . . . .	Food packaging	Converters, food producers
Walopur . . . . .	Sound insulation	Automotive industry
Walotex . . . . .	Breathable films	Textile industry
Walsroder . . . . .	Sausage casing	Meat packers

### *Cellulose Derivatives*

*Walocel M* is composed of methylhydroxyethylcellulose (MHEC) or methylhydroxypropylcellulose (MHPC). It is an additive that regulates moisture balance and improves the workability and adhesion of such building materials as tile adhesives, plasters, mortars and dispersion paints. Wolff began production of Walocel M in 1959. Our growth has outstripped that of the market as a whole; based on our internal market studies, we believe we currently rank number three worldwide. We believe that the market for Walocel M has good growth potential, due to both the variety of Walocel M's applications and the expansion of modern building techniques that use industrially premixed materials, whether in new building construction or in maintenance and renovation. Wolff is investing in the expansion of its production capacity.

*Walsroder NC* is a nitrocellulose (NC) for industrial applications. It serves in resin form in wood coatings and other industrial coatings as well as in printing inks for flexible packaging; it is also used as a component of nail polish and other specialty items. Production began in 1878. Despite its long history, NC has excellent properties and its market continues to grow. According to our internal estimates, Wolff occupies the number two position worldwide and is the market leader in Europe. We are increasing capacity to match the growth in customer demand, and investing in modern and safe production processes.

*Walocel C* is a high purity carboxymethylcellulose (Na-CMC), produced since 1950, with such properties as high water retention, pH- and temperature stability, clear solubility and compatibility with other hydrocolloids. Walocel C is used primarily as a thickener and binder in aqueous systems. It is also effective as a stabilizer and additive for improving consistency. It is useful in a wide variety of applications, from pharmaceuticals, dairy products and toothpaste to such technical uses as ceramics compounding, textile and paper manufacture and oil drilling. The markets of Na-CMC are varying in development; it is primarily the regulated markets that show good growth rates. It is in these markets that we have been steadily increasing our market share with the Walocel CRT-A line for pharmaceuticals, tooth care products and foodstuffs.

### *Plastic films*

*Walothern* is a class of BOPP (biaxially-oriented polypropylene) films for food and cigarette packaging and paper lamination.

*Walopur* is a class of thermoplastic polyurethane films with high elasticity, mechanical strength and resistance against chemicals. Our customers use *Walopur* in automobile engines and for many other technical applications.

*Walotex* is a membrane film for textile lamination. It permits water vapor transmission through the textile, making the textile “breathable”.

*Walsroder* is a fibrous cellulose and plastic casing for the production of a wide range of sausages.

### **Markets and Distribution**

With its cellulose derivatives, Wolff competes in the building materials, industrial coatings, flexible packaging ink and life sciences markets as well as in specialized industrial fields. We market our plastic films primarily for use in food packaging, including sausage casings, and for technical applications in the automotive and textile industries.

The business group’s sales by region and total, for the past three years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Europe .....	295	293	323
North America .....	76	55	48
Asia/Pacific .....	19	14	12
Latin America/Africa/Middle East .....	<u>37</u>	<u>23</u>	<u>23</u>
Total .....	<u>427</u>	<u>385</u>	<u>406</u>

The following table sets forth the business group’s sales for the last three years, broken down by category of activity.

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(euros in millions)		
Cellulose derivatives .....	195	166	158
Plastic films .....	229	216	245
Other .....	<u>3</u>	<u>3</u>	<u>3</u>
Total .....	<u>427</u>	<u>385</u>	<u>406</u>

Wolff generally conducts direct sales operations in Germany and the United States for its cellulose products and in Germany for its plastic films. Outside these areas, we ordinarily sell through Bayer’s worldwide sales organization, although we do sometimes use independent distributors.

The main raw material for our cellulose derivatives is chemical-grade cellulose derived from wood pulp. Because pulp producers have been expanding capacities in recent years, we have not had any significant problems with availability. The raw materials for our plastic films include polyethylene, polypropylene, Nylon 6, polyurethanes and printing inks. As there is a wide number of suppliers for these raw materials, availability is not generally problematic. Polymers, however, can be subject to price volatility caused by fluctuation in the price of oil.

Because many of its customers are producers of building materials, our cellulose derivatives business has traditionally been subject to seasonality tied to the seasonality of the building trade. Our sales outside Europe, however, have tended increasingly to balance this effect. Although our plastic films business is not generally seasonal, our sales of *Walsroder* sausage casings are strongest in autumn.

Our chief competitors in the cellulose derivatives business are Hercules (Aqualon), Dow, Clariant, Bergerac NC/SNPE, NEC/ICI, TNC, Nitroquímica Brasileira, Noviant and Akzo. In the plastic films business, our main competitors are Exxon Mobil (BOPP films), Alusuisse (converted films), J.P. Stevens (TPU films) and Kalle Nalo (sausage casings).

**Research and Development**

Wolff Walsrode focuses its research and development activities on cellulose derivatives for applications in construction materials, coatings, pharmaceuticals, food and cosmetics and on high-performance films from synthetic polymers for packaging and technical applications.

In addition to conducting research and development for its own core businesses, Wolff Walsrode is the Bayer Group’s competence center for cellulose chemistry. Cellulose is a natural product made from renewable materials. It is a significant research and development challenge to convert this substance into Wolff’s derivative specialty products while continually improving production processes. In response, Wolff has created a new polysaccharide pilot plant facility to serve as an interface between the laboratory, manufacturing and the market.

Wolff’s primary research and development facilities are in Bomlitz, Germany, near its traditional home base of Walsrode. In addition, we carry out a portion of the application development work for our films business in South Deerfield, Massachusetts. We currently have eight products in late stages of development. We expect to launch these products in 2002. These products are:

<u>Product/Brand name</u>	<u>Application</u>	<u>Status</u>
New Walocel M additive (based on methyl cellulose) . . . . .	High performance tile adhesives	Pilot plant, application testing
New Walocel M additive (based on methyl cellulose) . . . . .	Joint compounds (wall board setting)	Pilot plant, application testing
New grade of methyl cellulose . . . . .	Formulation of pharmaceuticals	Pilot plant, application testing
Very high viscous carboxymethyl cellulose (Walocel C) . . . . .	Additives for pet food	Pre-marketing
Phthalate-free plastified nitrocellulose . . . . .	Wood coatings and printing inks	Pre-marketing
Free-flowing nitrocellulose . . . . .	Wood coatings and printing inks	In market introduction
Breathable membrane films based on polyurethanes . . . . .	Textiles, leisurewear	Pre-marketing
High-strength polyurethane films . . . . .	Automotive airbags	In market introduction

## RESEARCH AND DEVELOPMENT

Bayer's research and development effort has a threefold structure. Each of our business groups (or segments, in the case of segments consisting of a single business group) bears the primary responsibility for its research and development activities. See the descriptions of the individual businesses above for a discussion of their specific research and development focus as well as their new product pipelines. Our Central Research division complements the activities of the various businesses. Finally, we supplement our internal research with a variety of external cooperations. These may be relatively simple and small scale. For example, all of our business groups may from time to time commission scientists at a university or research institute to carry out specific experiments and report their findings. On the other hand, these cooperations can be complex and of long term. Specifically in the life sciences, we have built up a structure of external research partnerships that, taken as a whole, is a significant part of our life sciences research and development effort.

### Central Research

Although each business group conducts independent research and development, the Central Research service division is one element of Bayer's commitment to technical leadership.

Spread across three facilities at Bayer sites in Leverkusen, Dormagen and Uerdingen, Germany, approximately 1,400 Central Research employees — including some 300 scientists, engineers, and technicians — work to provide all our businesses with technical innovations for their future-generation products, processes, and services. Central Research conducts early-stage research on products and processes as yet too new for applied use by the business groups. Central Research develops promising new ideas to the stage at which the business groups' research and development teams can put them to use.

Our Central Research professional staff comprises virtually all major scientific and engineering disciplines. This diversity of talent enables Central Research to quickly assemble large, multidisciplinary research and development teams to tackle complex projects and serve as a knowledge hub for the entire Bayer Group.

### Research collaborations

To supplement our internal research and development efforts, we have established an integrated program for collaborations with research-oriented firms as well as with international key technology leaders. Focusing primarily on the life sciences, and especially on pharmaceuticals research, our research collaboration program brings together over 20 major research partners to create a pool of expertise covering the entire research cycle, from discovery of disease-causing mechanisms through characterization of new active compounds to identification of a novel development candidate. We regard research collaboration as indispensable for delivery of a continuous flow of innovative human and animal drug and crop protection product development candidates.

The following table illustrates the phases of the typical life sciences/pharmaceutical research cycle, the various disciplines and techniques involved and the partners that provide us with active assistance in our research efforts.

<u>Research Cycle</u>	<u>Discipline/Technique</u>	<u>Partners</u>
Understanding the disease mechanism; identifying new targets for pharmaceutical research; designing the new molecular target	Genomics ( <i>mapping the expression of a gene in an organism or tissue</i> ); Functional genomics ( <i>functional analysis of genetic data</i> ); Proteomics ( <i>mapping protein expression and function in an organism or tissue</i> ) Bioinformatics ( <i>applying the tools of information technology to biological data analysis</i> )	Millennium; Genome Therapeutics; Incyte; Affymetrix; CuraGen; Oxford Glycoscience  LION Bioscience; Incyte

<u>Research Cycle</u>	<u>Discipline/Technique</u>	<u>Partners</u>
Screening the candidate substances	High throughput screening, or HTS ( <i>rapid, automated testing of compounds for potential effectiveness against a given target</i> )	CyBio; Novalon; Greiner
Optimizing the lead compounds	Pharmacophore informatics ( <i>linking chemical and biological data to increase the probability of success for screening hits and lead compounds</i> ) Toxico-CuraGen/Pharmacogenomics ( <i>increasing the quality and probability of success of drug candidates</i> )	LION Bioscience
Increasing the pool of potential drug candidates by small-chemical molecules and macromolecules (proteins, peptides)	Combinatorial chemistry/ Substance synthesis ( <i>techniques for increasing the number and diversity of test compounds</i> ) Pool of Bayer biomolecules ( <i>e.g., soluble proteins, monoclonal antibodies</i> )	ArQule; ComGenex; Oxford Asymmetry; Genzyme  Genzyme; Morphosys

In recent years we have created a framework of research collaborations to which we have committed expenses totalling approximately €1 billion. This investment has given us access to more than one million substances; the HTS technologies that we developed in collaboration with our partners enable us to screen more than 200,000 substances for a given target in a single day.

Three of our partnerships — those with Millennium, LION Bioscience and CuraGen — are of particular importance. Although our relationship with each of our individual research partners is important to us, it is the cooperative structure as a whole that is a key element of our strategy. With the exception of the three cooperations mentioned above, we do not regard our arrangements with any single partner as material from a financial or business perspective for the Bayer Group as a whole.

### ***Millennium***

Through our cooperation agreement with the Cambridge, Massachusetts based Millennium Inc., we have created what we believe to be the world's biggest collaborative effort to use the tools of genomics to identify new drug targets. Through this collaboration, we expect Millennium to provide us with 225 disease-relevant proprietary target genes and approximately 100 complete assay systems for high throughput screening. Our goal in this collaboration is to produce approximately 30 development candidates for new treatments in areas relevant to Bayer's pharmaceutical research.

The search for new targets begins in giant libraries of cDNA, molecular copies of the genetic information contained in the cell nucleus. Millennium uses DNA chips to analyse the expression of genes in healthy and diseased tissue. Millennium performs a complete sequence analysis of the genes presumed to be involved in the disease process (i.e., those expressing themselves differently in diseased tissue) and their tissue distribution pattern. The proteins that these genes code for become our targets; HTS assays then test multiple hundreds of thousands of compounds for effectiveness against these targets. We believe that the intellectual property we gain through this process gives us a significant competitive advantage.

We expect to expense a total of up to \$465 million in our collaboration with Millennium. This amount reflects our \$96 million equity investment in the company as well as a five-year, performance-dependent research agreement for the identification of potential drug targets and screening assays. This agreement has a maximum value of \$369 million, consisting of an initial \$44 million payment for technology transfer at the commencement

of the collaboration and yearly payments thereafter in an aggregate amount of up to \$325 million. The agreement is scheduled to expire on October 31, 2003, though we have the option of terminating it earlier in case of non-performance by Millennium. One goal of our collaboration is to obtain the technology and know-how that will enable us continue the genomics program on an independent, in-house basis after the completion of the collaboration.

### ***LION Bioscience***

We have established two cooperations with LION Biosciences, a leading provider of bioinformatics technology. We believe these cooperations have established a new world standard in bioinformatics competence.

Under the first of our two cooperations, which began in 1999, LION has established a subsidiary in Cambridge, Massachusetts, LION Bioscience Research Inc. (LBRI). LBRI works exclusively for Bayer, providing our entire life sciences effort with a strong IT platform and software development program.

With LION's help, we have developed an international bioinformatics network connecting Bayer life sciences research centers. Through this network, our researchers all over the world communicate online with LBRI's powerful computers, which also continuously screen other relevant databases worldwide. LBRI analyzes, interprets and distributes this data to us, allowing us to visualize drug-relevant gene target data ("*in silico*") for processing in our laboratories ("*wet biology*").

Our LBRI cooperation with LION has exceeded our expectations. In its first twelve months of operations, LBRI delivered more than 200 disease-related targets, which we have developed into a large number of new patent applications.

In October 2000 we began our second cooperation with LION, in the field of pharmacophore informatics. The goal of this collaboration is to develop software tools for the cross-linking of biological and chemical data.

We expect to invest a total of \$82.5 million in our collaborations with LION. Under the five-year agreement governing our initial cooperation, which is scheduled to end in 2004, we acquired an 11 percent equity stake in LION for \$30 million. LION receives yearly payments in an aggregate amount of \$25 million as well as more than \$6 million in license fees for the software it develops for us. We have an option to acquire LBRI for integration into our in-house research and development capacity upon the completion of our collaborations with LION. Under our second cooperation, scheduled to end in 2003, LION receives an aggregate payment of \$21.5 million to develop software for us.

### ***CuraGen***

We have complemented our collaboration with Millennium by starting two collaborative projects with CuraGen. The first cooperation focuses on the discovery, development and joint commercialization of small-molecule drugs for the treatment of obesity and adult-onset diabetes. The second cooperation is a broad-based project using CuraGen's functional genomics technologies and pharmacogenomics expertise to evaluate our research and development pipeline of pharmaceutical compounds across all disease areas.

CuraGen is to provide 80 drug targets during the initial five years of our first cooperation. In addition, CuraGen will provide us with access to its comprehensive suite of functional genomics technology as well as its bioinformatics and pharmacogenomic expertise to select and prioritize targets. We will use our HTS, combinatorial chemistry, medicinal chemistry, pharmacological and development expertise to develop small-molecule compounds to attack the targets identified by CuraGen.

CuraGen has committed with us to bring approximately 12 candidates for obesity and diabetes treatment to clinical development over a fifteen-year period. During this period, we will share the risks and expenses of pre-clinical and clinical development (up to \$1.34 billion), as well as co-promotion rights and any ultimate profits, from these drugs with CuraGen.

Under our second cooperation, CuraGen will apply its pharmacogenomic, toxicogenomic and pharmacogenetic technologies and expertise to evaluate our developmental and pre-clinical pipeline of pharmaceutical compounds. Through this cooperation, we expect to:

- reduce drug development costs;
- reduce time to market;
- create safer and more effective drugs; and
- compile a database of gene-based markers and information that will enable our scientists to predict potential drug toxicities, understand how specific drugs function and identify new disease conditions.

This five-year cooperation has a total value of \$124 million, consisting of our \$85 million equity investment in, and \$39 million in committed funding to, CuraGen.

### ***Bayer Technology Scouts***

In addition to our formal research and development collaboration structure, we have established a worldwide network of Bayer International Technology Transfer Managers, or “scouts”, for all therapeutic research areas. These scouts evaluate and propose collaborations with emerging biotech companies and academic institutions on new biological targets, mechanisms or reagents. The efforts of our scouts have resulted in more than 100 collaborations.

### **Governmental Research and Development Incentives**

Research and development is a cost-intensive activity. This is especially true in the pharmaceutical field, where concerns for drug effectiveness and patient safety require thorough pre-clinical and clinical testing of all new drug candidates. See below, “Governmental Regulation”. Although not every new drug candidate will ultimately become a successful market entrant, Bayer and other pharmaceuticals developers cannot undertake costly research and development activities unless there is at least the possibility of a return on their investment. There are a number of rare diseases that urgently require effective medications, but which affect so few patients that it would be impossible, absent government assistance, for pharmaceuticals developers to recoup their research and development investments. Governments typically provide developers with an incentive to carry out research on these rare diseases by granting marketing privileges that exceed those normally available under patent laws.

The U.S. Orphan Drug Act provides manufacturers with incentives to develop and market drugs for rare diseases or conditions (i.e., those affecting fewer than 200,000 persons in the United States at the time the manufacturer applies for orphan drug designation). The first applicant who obtains both orphan drug designation and approval of a marketing application for a drug is entitled to marketing exclusivity for a period of seven years, subject to certain limitations. However, a drug that FDA considers different from a particular orphan drug is not barred from sale in the United States during this seven-year exclusive marketing period even if the second drug has received marketing approval for the same indication.

In January 2000, the European Union also implemented an incentive program for the development of drugs for rare diseases. Under the EU rules, a drug is eligible for designation as an orphan medicinal product if its sponsor establishes at the time of application that the drug is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition affecting not more than five in 10,000 persons in the European Community, or that without incentives, it is unlikely that the marketing of the drug would generate sufficient return to justify the investment necessary to develop the drug. The sponsor must also establish that there is no existing satisfactory method for the diagnosis, prevention or treatment of the condition in the European Community. A sponsor who obtains orphan drug designation is generally entitled to 10 years’ marketing exclusivity (although this period may expire after only six years if the drug no longer meets the criteria for orphan status). Subsequent producers of similar drugs may obtain a marketing authorization for the same therapeutic indication as an orphan drug even during the orphan’s exclusivity period if the orphan’s producer cannot supply sufficient quantities of the drug, or if the subsequent applicant establishes that its drug is safer, more effective or otherwise clinically superior to the original orphan drug.

## INTELLECTUAL PROPERTY PROTECTION

To succeed in its business, Bayer, like any company active in our markets, must continually seek new products that provide our customers with better solutions for existing problems and new solutions for emerging problems. Our drive for innovation requires us to expend significant effort on research, development, manufacturing and marketing. To preserve the value of our investment, we rely on the protections made available by the patent and trademarks laws of the jurisdictions where we do business. In addition, our production technologies typically incorporate highly specialized proprietary know-how.

We have both developed intellectual property internally and acquired it as assignee through various acquisitions. In addition to using our intellectual property in our own business, Bayer — like most other companies in our markets — may from time to time grant licenses to third parties to use our patents and know-how, and may obtain licenses from others to manufacture and sell products using their technology and know-how.

### Patents

Our policy is to seek the maximum available patent protection for our products in our major markets. Thus each of our patented products may in fact be covered by a number of different patents. Depending on the jurisdiction, patent protection may be available for:

- individual active ingredients;
- specific compounds, formulations and combinations containing active ingredients;
- manufacturing processes;
- intermediates useful in the manufacture of products;
- genomic research; and
- new uses for existing products.

The actual protection that a patent provides can vary significantly from country to country depending on the type of claim granted, the scope of the claim's coverage and the legal remedies available in that country for the enforcement of patents. For example, although patent protection in the United States is generally strong, under some circumstances U.S. law permits generic pharmaceutical manufacturers to attempt to obtain regulatory approval to market generic versions of patented products before the patents expire. See Item 8, *Financial Information — Legal Proceedings*. In addition, some developing countries have announced plans to significantly reduce levels of patent protection for some drugs.

The advance of genomic research has accelerated our patent filings for biological products. We typically seek protection upon determining a gene's function.

We currently hold thousands of patents, and have applications pending for a significant number of new patents. Although our patents are important to our business, we believe that, with the exception of those covering our pharmaceutical products Adalat, Avalox and Cipro, as well as the patent on Imidacloprid, a compound used in Advantage, Gaucho, and a number of our other agricultural products, no single patent (or group of related patents) is currently of material importance to Bayer's business as a whole.

### *Term and Expiration of Patents*

Patents are valid for varying periods, depending on the laws of the jurisdiction granting the patent. In some jurisdictions, patent protection begins from the date the patent application was filed; in others, it begins on the date the patent is granted.

The European Union, the United States, Japan and certain other countries provide for the extension or restoration of patent terms or supplementary protection certificates to compensate for patent term loss due to the regulatory review process and the substantial investment made for product research and development and regulatory approval. Our policy is to obtain these extensions where possible.

The patent protection (or analogous regulatory exclusivity measures) in our major markets for some of our key products is scheduled to expire in the near term. Although the expiration of a patent for an active ingredient normally results in the loss of market exclusivity, we may continue to derive commercial benefits from:

- later-granted patents on processes and intermediates used in manufacturing the active ingredient;
- patents relating to specific uses for the active ingredient;
- patents relating to novel compositions and formulations; and
- in certain markets (including the United States), market exclusivity that may be available under applicable laws other than patent laws.

The following table sets forth the expiration dates in our major markets of the patents covering Adalat, Avalox, Cipro, and Imidacloprid.

<u>Product</u>	<u>Market</u>							
	<u>Germany</u>	<u>France</u>	<u>U.K.</u>	<u>Italy</u>	<u>Spain</u>	<u>Japan</u>	<u>U.S.A.</u>	<u>Canada</u>
Adalat								
Crystal patent (Retard) . . . . .	—	—	—	2003	—	—	2010	—
Adalat CC (Coat Core) . . . . .	2008	2008	2008	2008	2008	2008	2008	2009
Gits/Oros excl. license (Alza) . . . . .	2004	2004	2003	2004	2004	2004	—	2004
Avalox								
Compound . . . . .	2009	2009	2009	2014	2009	2009	2014	2016
Hydrochloride-Monohydrate . . . . .	2016	2016	2016	2016	2016	2016	2016	2016
Tablet formulation . . . . .	2019	2019	2019	2019	2019	2019	2019	2019
Cipro								
Active ingredient . . . . .	—	2004	2002	2009	—	—	2003	2004*
Process . . . . .	2002	2002	2002	2002	2003	2002	—	2004
IV formulation . . . . .	2006	2006	2006	2006	2006	2006	2007	2008
Tablet formulation . . . . .	2007	2007	2007	2007	2007	2007	2011	2009
Imidacloprid . . . . .	2007	2007	2007	2007	2007	2005	2006	2007

\* Composition

See Item 8, *Financial Information — Legal Proceedings* for a description of patent-related litigation in which we are involved.

## Trademarks

We market most of our products under a wide variety of trademarks world-wide. Our best-known trademarks include Alka-Seltzer, Aspirin, Autan, Baygon, Canesten, Flint, One-A-Day, Perlon and Rid, as well as the Bayer name itself and our distinctive “Bayer cross”. Trademark protection varies widely throughout the world. In some countries, trademark protection continues as long as the mark is used. Other countries require registration of trademarks. Registrations are generally for fixed but renewable terms. Although our portfolio of trademarks is important to our business, we do not believe that any single trademark is material to Bayer’s business as a whole.

## GOVERNMENTAL REGULATION

Our business is subject to significant government regulation. Many of our products must be examined and approved by regulatory agencies for safety and effectiveness before we may market them. In addition, all our operations must comply with applicable environmental regulations.

### **Product Regulation**

Many Bayer products are subject to significant regulatory requirements. The primary emphasis of these requirements is to assure the safety and effectiveness of our products. Regulation in the United States is of particular importance because of the United States' large share of the worldwide market. In the United States the Food and Drug Administration (FDA) regulates many of our products, primarily those in our Health Care businesses. In addition, our pharmaceutical facilities typically require regulatory approval and are subject to periodic re-inspection.

### ***Pharmaceutical Products***

Given their direct effect on human health, the products of our Pharmaceutical segment are subjected to more stringent regulation than our other products. Pharmaceutical products must receive regulatory approval before they can be marketed in individual countries. The regulatory requirements follow stringent standards that vary by country. Before a drug can qualify for marketing approval, a registration dossier must be submitted to a regulatory authority for review and evaluation. The registration dossier principally contains detailed information about the safety, efficacy and quality of a new medication. It also provides details about the manufacturing process, the production facilities and information to be provided to patients. The registration process can last from a few months to a few years and depends on the nature of the medication under review, the quality of the submitted data and the efficiency of the relevant agency's review procedure. If a drug meets the approval requirements, a regulatory authority will grant a product license for marketing. In some countries, negotiation on pricing and reimbursement follow the grant of the product license. After the product launch and during marketing, it is typically a legal requirement that the manufacturer monitor adverse reactions and report any to the appropriate authorities.

The process of developing a pharmaceutical product from discovery through testing, registration and initial product launch typically takes approximately 10 years. After identifying a candidate pharmaceutical compound, the manufacturer tests it in clinical Phase I on a small group of healthy volunteers for safety, side effects and pharmacological profile. In clinical Phase II, a pharmaceutical compound is tested on a limited number of volunteers (both patients and healthy persons) for safety, efficacy and appropriate dosage. In clinical Phase III, a pharmaceutical compound is tested in a larger diverse group of patient volunteers to assess safety, efficacy, side effects and dosage in a statistically significant fashion. The results of these clinical trials are then submitted to appropriate regulatory authorities with the objective of obtaining approval to sell the drug. After commercial launch, trials are typically held to monitor the safety and efficacy of the products in large patient groups and to investigate potential new applications.

The principal regulatory authority in the United States is the FDA, which administers and executes requirements covering the testing, approval, safety, effectiveness, manufacturing, labeling and marketing of prescription pharmaceuticals. Over the years, FDA requirements have increased the amount of time and money necessary to develop new products and bring them to market in the United States. In 1997, the U.S. Congress enacted the Food and Drug Administration Modernization Act to streamline regulatory procedures and improve the regulation of drugs, medical devices, and food. The legislation was principally designed to expedite the premarket review process for new products. A key provision of the legislation is the re-authorization of the Prescription Drug User Fee Act of 1992, which permits the continued collection of user fees from prescription drug manufacturers to augment FDA resources earmarked for the review of human drug applications. This helps provide the resources necessary to ensure the timely approval of safe and effective new drugs.

In the European Union, there are two different approval procedures available: a centralized procedure and one based on the Mutual Recognition Procedure. The London-based European Agency for the Evaluation of Medicinal Products governs the centralized drug registration and approval process and consists of two

committees, one for proprietary medicinal products (CPMP) and one for veterinary medicinal products (CVMP). Each member state of the European Union has two members on each committee. The committee makes a recommendation based on a review by appointed officials known as the rapporteur and co-rapporteur, who are part of the CPMP/CVMP. Following the committee's recommendation, the European Commission issues its formal decision, which is valid throughout the EU without further action. When the approval process is successful, the drug may be marketed within all member states of the European Union. The other method is the Mutual Recognition Procedure in which one country carries out the primary and main evaluation. The other member states then have 90 days to decide if they accept or reject the decision made by the reference member state. If a country does not follow the decision of the reference country, the applicant may refer the process to the CPMP for review as in the centralized procedure, or may withdraw that country from the procedure. The formal decision will be made by the European Commission based on this evaluation.

In Japan, two issues complicate the approval process for drugs developed outside of that country. First, the Japanese approval agency does not recognize all documents used in registration procedures in other countries. Second, the Japanese approval agency requires that tests to determine appropriate dosages for Japanese patients be conducted on Japanese patient volunteers. Due to these issues, parts of Phase II and of Phase III of the clinical program generally need to be repeated in Japan. This could mean a delay of two or three years in introducing a drug developed outside of Japan to the Japanese market.

Among the products that our Pharmaceuticals segment markets is a special group of substances known as "biologicals". Biologicals derive from biological sources (e.g. from human plasma or from cell lines genetically engineered to produce a specific protein). In the United States and in many other markets, biologicals are subject to additional regulation beyond those governing other drug products. For example, in order to minimize the risk of infectious disease transmission, human plasma-derived products require donor screening and plasma testing, as well as multiple manufacturing steps designed to remove viruses and other infectious agents. Biological products are chemically complex, often depending on a precise structure (e.g., the specific folding of a molecule) for their effectiveness. Regulations require us to subject these products to rigorous testing to ensure the stability of the products over its shelf-life. In addition, because biological products typically cannot withstand conventional sterilization techniques, we must use special processes, under stringent conditions of cleanliness, to ensure sterility. Under applicable regulatory requirements, we must submit detailed documentation to demonstrate appropriate controls over our manufacturing facilities, including associated equipment and supporting utilities like water supply and climate control.

In recent years, efforts have been made between the European Union, the United States and Japan to achieve shorter development and registration times for medicinal products by harmonizing the individual requirements of the three regions. The process is called the International Conference on Harmonization. For the foreseeable future, however, we will need to obtain approval in each market.

### ***Consumer Care and Diagnostics products***

Many of the products of Consumer Care are subject to regulatory regimes similar to those governing the products of the Pharmaceuticals segment. For example, new over-the-counter medications must receive regulatory approval before they can be marketed in individual countries. In the United States, the FDA and, in part, the Federal Trade Commission oversee the marketing, manufacturing and labeling of dietary supplements, including vitamins.

The products of the Diagnostics business group are in vitro diagnostic (IVD) products, subject to regulatory controls similar to those governing the development and marketing of pharmaceutical products.

In the United States, the FDA is the governmental agency that regulates IVD products as medical devices, through its Center for Devices and Radiological Health. All manufacturers of medical devices must register their facilities with the FDA, and obtain from the FDA an Establishment Registration Number. All registered establishments are subject to periodic inspections by FDA investigators to ensure compliance with the quality requirements. These manufacturers must also maintain with the FDA a list of all the devices they market. The FDA classifies IVD products as Class I, Class II or Class III, depending on their potential impact on health.

In general, IVD products require FDA clearance or approval before they may be marketed. The majority of Class I IVDs and a small number of Class II IVDs are, however, exempt from this requirement. Where possible, we seek FDA clearance on the grounds that the new product demonstrates “substantial equivalence” with a similar product that the FDA has already cleared. FDA clearance usually takes between two and eighteen months, depending on the degree of novelty involved. For truly new IVD products, we must obtain FDA approval, submitting extensive data to demonstrate safety and effectiveness, based on actual clinical trials under controlled conditions. The FDA review and approval process takes from nine months to two years or longer. This approval almost invariably involves an FDA inspection of the facilities where the product in question is manufactured, including a review of the design and manufacturing processes employed. After obtaining FDA approval, we must also file an annual report of actual experience in the market place, including all adverse incidents in which the product was allegedly involved.

Outside the United States, our Diagnostics products are subject to a variety of regulatory regimes. In the EU, two major Directives regulate these products. The Medical Device Directive governs diagnostic products that come in direct contact with the human body. The IVD Directive, as the name implies, applies to products use in vitro, i.e., those that do not come in direct contact with the human body. In Japan, a special section of the Pharmaceutical Affairs Law regulates diagnostic products. In Australia and Canada, the applicable laws and regulations are similar to the European model. Many countries in South America and Asia have regulatory requirements similar to those promulgated either by the FDA or by the European Commission. All of these requirements involve product registration/approval by local regulatory agencies, and the reporting of adverse incidents and field corrective actions.

### ***Crop Protection and Animal Health Products***

The Center for Veterinary Medicine within the FDA is responsible for ensuring that animal drugs and medicated feeds are safe and effective for their intended uses and that food from treated animals is safe for human consumption. Animal health products are also regulated in the United States by the U.S. Department of Agriculture (USDA) and the Environmental Protection Agency (EPA).

In most countries, crop protection products must obtain government regulatory approval prior to marketing. This regulatory framework is directed to ensure the protection of the consumer, the applicator and the environment. The strictest standards are applied in the United States, Japan and Western Europe. In the United States, the EPA has the responsibility for registration of all chemicals released into the environment, including herbicides, insecticides, fungicides and plant growth regulators whether they are used for crop protection or for public health. Significant amounts of EPA resources are concentrated on the effects of crop protection products on the environment and on the safety of fish, wildlife and water resources. Plant-based crop protection products are also regulated by the USDA for environmental safety of the plant and by the FDA to ensure the safety of the food.

Since human exposure to these products may occur from residues on food or from residential lawn use and/or indoor residential use, the safety assessment considers the human risk from all anticipated routes of exposure. Special sensitivities, food consumption and exposure patterns on infants and children are specifically considered. If the product is used on a food crop, a legal limit for residual chemical or a tolerance is established for the specific chemical. This limit is based on a strict health standard and the data provided by the manufacturer.

It generally takes seven to nine years from discovery of a new crop protection product until the dossier is submitted to the appropriate regulatory agency for product approval. There are no statutory time frames in the United States for registration of new crop protection products. The standard time frames for a pesticide not regulated under an EPA priority are typically 36 to 48 months. For a pesticide with an EPA priority, this time frame is shortened to an average of 24 months. Numerous initiatives on the part of both the EPA and crop protection manufacturers aiming to streamline the review process and reduce the review time for a new product have not been successful to date.

### ***Proposed new EU Regulations***

The European Union is currently contemplating a new policy for the testing and assessment of basic chemicals and chemical intermediates. This new policy would require companies like Bayer that manufacture and import chemicals to compile dossiers on a large number of chemical substances, describing exposure to these substances during their production and application and noting their potential risks, such as environmental damage or health risks. Although we cannot accurately predict the final form of the proposed new regulations or the additional costs we would incur in complying with them, we expect that these costs would be substantial.

### **Environmental Regulation**

The production and distribution of many Bayer products involves the use, storage, transportation and disposal of toxic and hazardous materials. We are subject to extensive, evolving and increasingly stringent national and local environmental laws and regulations, which address, among other things, the following:

- emissions into the air;
- discharges of waste water;
- other releases into the environment;
- generation, handling, storage, transportation, treatment and disposal of waste; and
- maintenance of safe conditions in the workplace.

We are subject to environmental laws and regulations that may require us to remove or mitigate the effects of the disposal or release of chemical substances at various sites. Under some of these laws and regulations, a current or previous owner or operator of property may be held liable for the costs of removal or remediation of hazardous substances on, under, or in its property, without regard to whether the owner or operator knew of, or caused the presence of the contaminants, and regardless of whether the practices that resulted in the contamination were legal at the time they occurred. As many of our production sites have an extended history of industrial use, it is impossible to predict precisely what effect these laws and regulations will have on us in the future. As is typical for companies involved in the chemical and related industries, soil and groundwater contamination has occurred in the past at some of our sites, and might occur or be discovered at other sites.

It is our policy to comply with all environmental, health and safety requirements and to provide workplaces for employees that are safe and environmentally sound, incurring capital expenditures to do so when necessary. In 2000, combined worldwide expenditures, including those with respect to third party and divested sites, for compliance with environmental control regulations and internal company initiatives totaled €1.0 billion, of which €183 million was for capital projects. We expect that Bayer, and its industries in general, will continue to be subject to stringent environmental regulation. Although we cannot predict future expenditures with certainty, we believe that the current spending trends will continue.

We do not believe that any of our German sites have unexpected levels of contamination. Nevertheless, we could discover unexpected contamination at any of these sites, especially in view of the fact that some have been in operation for over 100 years. Consistent with German law and with agreements with the relevant governmental entities, we are addressing known contamination at our German facilities. In Germany, we record a provision for known environmental liabilities when we are obligated to remediate a facility. This provision includes all costs that we are likely to incur and that we can reasonably estimate. We adjust these provisions if we make new remedial commitments. Although we record provisions for known environmental liabilities, we do not record provisions for potential liabilities because we cannot accurately estimate the costs for investigation and clean-up. In the event that we discover such liabilities, the costs for removal or clean-up could be significant. See Note 29 to our consolidated financial statements.

We are subject to claims brought by United States federal or state regulatory agencies or private individuals regarding the cleanup of sites that we own, formerly owned or operated, or where waste from our operations was disposed. In particular, we have a potential liability under the U.S. Federal Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as “Superfund”, the U.S. Resource Conservation

and Recovery Act and related state laws for investigation and clean-up costs at a number of sites. At many of these sites, numerous companies, including Bayer, have been notified that the U.S. Environmental Protection Agency, state governing body or private individuals consider such companies to be potentially responsible parties under Superfund or related laws. The proceedings relating to these sites are in various stages. The clean-up process at many sites is ongoing. We regularly review the liabilities for these sites and have accrued our best estimate of our ultimate liability for investigation or clean-up costs. Although the ultimate liability may vary from these estimates because of the many variables involved in forming estimates of this type, we do not believe that the expenditures involved will have a material adverse effect on our financial position, results of operations or cash flows.

It is difficult to estimate the future costs of environmental protection and remediation because of many uncertainties, including uncertainties about the status of laws, regulations and information related to individual locations and sites. Subject to the foregoing, but taking into consideration our experience to date regarding environmental matters of a similar nature and facts currently known, we believe that capital expenditures and remedial actions to comply with existing laws governing environmental protection will not have a material adverse effect on our financial position, results of operations or cash flows. As of December 31, 2000, we had reserved €230 million for environmental matters.

We believe that we are in substantial compliance with applicable environmental, health and safety laws and regulations. We continue to devote attention to the health and safety of our employees and the protection of the public health and the environment in the regions where we operate. Although this compliance has not hitherto had an adverse effect on our competitive position or business, we cannot predict the effect of possible future regulations. As a member of the American Chemical Council, Bayer is committed to the principles of Responsible Care, the chemical industry's health, safety and environmental performance improvement initiative.

## ORGANIZATIONAL STRUCTURE

Bayer AG is the ultimate parent company of the Bayer Group. The Group operates in seven segments comprising 14 business groups. For a discussion of the activities of each segment, see above, — *Business Overview*. In December 2001, we announced plans to transform Bayer AG, with effect from January 1, 2003, into a management holding company structure that would group our business into four newly formed, independently operating subsidiaries. In addition to its seven segments, Bayer has 17 central divisions, comprised of corporate divisions/staffs and central service divisions, that provide key support and administrative services. The corporate divisions/staffs are Corporate Planning and Controlling; Finance; Legal, Patents, Licenses and Insurance; Corporate Communications; Executive Personnel; Corporate Auditing; Quality, Environment and Safety Policy; Taxes and eCommerce. The central service divisions consist of Procurement; Information Systems; Human Resources; Enterprise Accounting and Reporting, Site Services, Environmental Protection and Safety; Central Research; Central Logistics and Central Technology.

### Subsidiaries

The following table lists Bayer AG's principal consolidated subsidiaries and its beneficial ownership interest in each.

<u>Company Name and Place of Business</u>	<u>Bayer's interest (%)</u>
<b>Germany</b>	
Bayer Faser GmbH, Dormagen . . . . .	100
Bayer Industrieprodukte GmbH & Co. KG, Leverkusen . . . . .	100
Bayer Vital GmbH & Co. KG, Cologne . . . . .	100
Haarmann & Reimer GmbH, Holzminden . . . . .	100
H.C. Starck GmbH & Co. KG, Goslar . . . . .	100
Rhein Chemie Rheinau GmbH, Mannheim . . . . .	100
Wolff Walsrode AG, Walsrode . . . . .	100
<b>Other European Countries</b>	
Bayer A/S, Denmark . . . . .	100
Bayer Antwerpen N.V., Belgium . . . . .	100
Bayer B.V., Netherlands . . . . .	100
Bayer Hispania, S.A., Spain . . . . .	100
Bayer International S.A., Switzerland . . . . .	100
Bayer plc, U.K. . . . .	100
Bayer Rubber N.V., Belgium . . . . .	100
Bayer S.p.A., Italy . . . . .	100
Química Farmacéutica Bayer, S.A., Spain . . . . .	100
Bayer Pharma S.A., France . . . . .	99.9
Bayer S.A., France . . . . .	99.9
<b>North America</b>	
Bayer Corporation, United States . . . . .	100
Bayer Inc., Canada . . . . .	100

<u>Company Name and Place of Business</u>	<u>Bayer's interest (%)</u>
<b>Asia / Pacific</b>	
Bayer China Co., Ltd., Hong Kong .....	100
Bayer Ltd., Japan .....	100
Bayer (South East Asia), Singapore .....	100
Bayer Yakuhin Ltd., Japan .....	100
Bayer Australia Ltd., Australia .....	99.9
Nihon Bayer Agrochem K.K., Japan .....	99.5
Sumika Bayer Urethane Co., Ltd., Japan .....	60
<b>Latin America / Africa / Middle East</b>	
Bayer de México, S.A. de C.V., Mexico .....	100
Bayer (Proprietary) Ltd., South Africa .....	100
Bayer S.A., Argentina .....	99.9
Bayer S.A., Brazil .....	99.9

### PROPERTY, PLANTS AND EQUIPMENT

As a company with wide-ranging global presence, we operate through a large number of offices, research facilities and production sites throughout the world. The principal executive offices of Bayer AG as well as a number of Bayer's key production facilities are located in Leverkusen, Germany. We have facilities in Europe, the Americas, Asia, Oceania and Africa, of which the most important are in Germany and the United States. We also have other properties, including office buildings, laboratory and research laboratories and distribution centers.

Our policy is to acquire full ownership rights in our manufacturing facilities whenever possible. We own most of our manufacturing facilities and other properties. Where locally applicable law does not permit this or acquisition of full property rights is otherwise unfeasible, we acquire possessory interests conferring substantially the same rights of use as does ownership (e.g. German-law hereditary building rights or *Erbbaurechte* and granted land use rights in Asian countries).

### E-COMMERCE

The "New Economy" emphasizes the use of new technologies to improve existing business relationships and generate new ones. The internet is revolutionizing sales and procurement channels and significantly changing the way we co-operate with our partners across the entire process and value chain, (e.g., in research and development, engineering, marketing and logistics).

We have charged our core worldwide team of more than 100 e-commerce experts to guide the Bayer Group to leadership in this emerging field. By year-end 2000, we had already achieved an e-commerce based transactional volume of more than €250 million. We expect this figure to grow significantly over the next few years, reaching approximately €5 billion by 2004. We plan to charge as expense approximately €100 million in e-commerce solutions by the end of 2001.

As a company organized under the laws of a European Union member state, we are required to comply with the EU Directive on Legal Aspects of Information Society Services (The Electronic Commerce Directive), Directive 2000/31/EC and the Directive of the European Parliament and of the Council concerning the processing of personal data and the protection of privacy in the telecommunications sector, Directive 1997/66/EC. We believe that we comply with these directives; compliance has not had a material impact on our business.

We have built Bayer's e-commerce strategy on four cornerstones:

### **Web-enabling our core business processes**

We collect and analyze information to learn more about customers and suppliers. We use this information to add customer value and improve our products and services. We expect powerful front-end solutions, supported by efficient content-management systems, to reduce transaction costs significantly.

Our efforts in Customer Relationship Management range from supply chain integration (vendor-managed inventory, electronic data interchange) to account and collaboration portals. Our e-commerce solutions include:

- BayerDirect.com, our U.S.-based internet portal for biological health care products;
- our North American polymers and chemicals portal BayerOne.com;
- the agricultural portal Bayervalue.com; and
- Solutionsforpaper.com, a specialized portal for the paper industry.

These portals have been online since 2000. Our most recent launch is the global Bayer ONE portal, which will integrate our existing transactional portals in the polymers and chemicals fields.

We also implement e-solutions for key internal purposes, (e.g. to shorten time-to-market periods or to facilitate "business to administration" interaction in the fields of drug safety and registration).

### **Integrating web-based business models and distribution channels**

Neutral e-commerce marketplaces are gaining in importance in various markets. We participate in Chematch and Chemconnect, and also use Portum and Freemarkets. We actively seek out entrepreneurial companies like yet2.com with a view to technology transfer.

Bridging the gap between producer and consumer is another important objective of our e-commerce strategy. BayerDirect, our enrollment and product delivery service for biological health care products, exemplifies this strategy.

### **Forging strategic e-commerce partnerships**

We focus our interest on large industry consortia with the economic strength to improve chances of future success. We seek to form partnerships with other industrial leaders whose liquidity and broad range of offerings makes them attractive not only for customers, but also for future members and partners. We believe that continuing consolidation in these markets will increase their attractiveness for customers.

Examples of marketplaces in which Bayer was a founding member include:

- Elemica (chemicals), which now integrates the former rubber and rubber chemicals-focused Elastomer-Solutions marketplace; and
- Omnexus (polymers; packaging and equipment for the injection molding and blow molding industry)

On the procurement side, CC-Chemplorer — the maintenance, repair and operations and packaging material e-marketplace — exemplifies how we strive to improve internal processes and use procurement know-how (e.g., experience with electronic catalogues) to build profitable new businesses.

### **Building up our e-culture and e-branding**

The center of our e-culture is the management of customer relations as a strategic asset and the allocation of resources to exceed customers' expectations. Our next important steps are web-enabling our organization and integrating customer knowledge across distribution and communication channels as well as across our business groups and geographic regions.

Supporting and leveraging our corporate brand is a central issue. We are currently optimizing and harmonizing our almost 200 corporate and product web sites to show “one face to the customer”, in terms of both functionality and appearance.

## Item 5. Operating and Financial Review and Prospects

Prospective investors should read the following operating and financial review and prospects with the consolidated financial statements and the notes to those financial statements included elsewhere in this registration statement. We have prepared these financial statements in accordance with IAS, which differs in some respects from U.S. GAAP. For a reconciliation of net income and stockholder's equity to U.S. GAAP, see note 44 to our consolidated financial statements.

The forward-looking statements in this Item 5 are not guarantees of future performance. They involve both risk and uncertainty. Several important factors could cause our actual results to differ materially from those anticipated by these statements. Many of those factors are macroeconomic in nature and are, therefore, beyond the control of our management.

### OVERVIEW

We are a global company offering a wide range of products, including high-value pharmaceuticals, diagnostics and other health-care products; agricultural products; polymers; and chemicals.

Bayer comprises the parent company, Bayer AG of Leverkusen, Germany, and over 250 consolidated subsidiaries. We are organized into seven business segments — Pharmaceuticals; Consumer Care & Diagnostics; Crop Protection; Animal Health; Plastics & Rubber; Polyurethanes, Coatings & Colorants; and Chemicals. In December 2001, we announced plans to transform Bayer AG, with effect from January 1, 2003, into a holding company that will hold our operating business through four newly-formed direct operating subsidiaries of Bayer AG. See “Business Overview” in Item 4, *Information on the Company*.

Although Bayer AG was first incorporated in 1951, we trace our historical roots to Friedr. Bayer & Co., founded in 1863. Since our formation in 1951, we have pursued a program of growing both organically and through selective acquisitions. In 1998 we spent €1.4 billion on acquisitions mainly for Chiron Diagnostics, an acquisition that gave us entry into the field of nucleic acid diagnostics. In 1999 we spent €0.4 billion on acquisitions. Major projects in 1999 included the acquisition of the plastic sheet businesses of the chemical companies DSM-Axxis, N.V. and Sheffield Plastics Inc.; the purchase of Elastochem Inc.; and an 11.3 percent equity investment in Lion Bioscience AG. In 2000, we spent a total of €4.2 billion on acquisition activity, mainly in the acquisition of Lyondell Chemical Company's polyols business, Sybron Chemicals Inc., CSM Holding, Inc. and Cytec Industries Inc.'s sizing and strength paper chemicals business. In the life sciences area we strengthened our crop protection business with two acquisitions: the Flint line of strobilurin fungicides and a 50.1 percent stake in South Korea's Misung Ltd., which thereby became a wholly-owned subsidiary.

In October 2001, we entered into an agreement to acquire Aventis CropScience from Aventis and Schering. The consummation of this transaction is conditioned upon antitrust and competition reviews in the United States and the European Union. Assuming that we receive the requisite regulatory approvals, we expect to complete this acquisition by the end of the first quarter of 2002. See below, — *Recent Developments and Trend Information — Outlook — Aventis CropScience Acquisition*.

We complement our growth program by divesting businesses and assets that we believe no longer fit into our overall strategic plan. Our major divestments in 1998 were the sale of our citric acid, copying systems and zeolites businesses. We also transferred our titanium dioxide and silicones activities to joint ventures. In 1999, we floated 70 percent of our former Agfa photographic business segment in an initial public offering. In 2000, BASF joined the DyStar joint venture as a new partner, combining its textile dyes business with DyStar's. The resulting increase in DyStar's share capital reduced our proportionate share to 35 percent. Since that time we consider DyStar a non-core business and classify it under “Discontinuing Operations”. We intend to divest our holdings in Agfa in the near term. We continued to streamline our portfolio through 2000, divesting our animal health biologicals and solar-grade silicon businesses as well as our generic pharmaceuticals businesses in the United States (Schein Pharmaceutical, Inc.) and Germany (Basics GmbH), and in Myriad Genetics Inc. and Troponwerke GmbH & Co. KG. In May 2001, we sold our interest in the EC Erdölchemie joint venture, which we had previously classified under “Discontinuing Operations”. During the first half of 2001 we also sold our former acrylic fiber and spandex yarn product lines which we have classified, along with the remainder of the Fibers

business group, as “Discontinuing Operations” for all periods presented. In December 2001, we announced plans to divest from our business group Haarmann & Reimer, as we no longer consider it to be part of the Chemicals core business.

### **OPERATING RESULTS 2000, 1999 and 1998**

We derive our revenue primarily from the sale of consumer and industrial products and, to a lesser extent, from the sale of services. The primary factors that affect our revenue include the introduction of new products as well as our ability to manage the life-cycles of existing products. In 2000 we were generally able to increase prices, thus improving margins. In 1999 and 1998, by contrast, the prices to customers for many of our products generally held stable or declined. Increased unit volume has therefore had a greater effect on the growth of our revenue during the last three years as a whole than has our ability to increase selling prices. We record revenue for the majority of our products upon delivery to customers. Mergers and acquisition activities also affect our revenue. In addition to the major acquisitions and divestments that we discuss in this section, as a large and diversified global company we often enter into a number of smaller transactions, none of which are material to our results on an individual basis but which, taken as a whole, can have a significant effect. Because we conduct our operations globally, fluctuations of exchange rates between the euro and non-euro currencies can affect our revenue. In recent years these fluctuations (especially in the euro-U.S. dollar exchange rate) have had a significant and generally positive effect on our revenue. For a description of measures that we have adopted for controlling exchange rate risk, see Item 11, *Quantitative and Qualitative Disclosures about Market Risk*.

The single most important factor that affects our costs is the price of raw materials for our products. We seek to reduce our sensitivity to fluctuations in many raw material prices by producing at least a part of our requirements internally, within the Bayer Group. Petrochemical feedstocks are important raw materials in many of our products, especially in our Polymers and Chemicals segments. We do not produce significant volumes of petrochemicals. Effective May 1, 2001, we sold our 50 percent interest in the EC Erdölchemie joint venture, which had been our one significant venture into this area, to Deutsche BP, our former joint venture partner. We had classified EC Erdölchemie as a discontinuing operation in 1999. Because of this lack of internal petrochemicals sourcing, as well as the volatility of oil prices in recent years, our single greatest raw-materials sensitivity is to fluctuations in the price of petrochemicals. Other significant factors that affect our costs include labor as well as trigger or milestone payments under various joint ventures and cooperations. In recent years, the integration of an enterprise management system has increased our general administration expenses. We began this integration in 1998 and expect to complete it by 2004.

Acquisitions and divestitures during 2000 and 1999 had a positive effect on net sales of €0.7 billion. This activity affected the comparison between the two years' sales figures as follows:

	<u>Change in 2000 from 1999</u> (euros in millions)
<i>Acquisitions</i>	
Polyols business (from Lyondell) .....	646
Plastic sheet business (from DSM; effective April 1, 1999) .....	80
Purchase of remaining interest in Misung Ltd., Pyongtaek, South Korea .....	58
Sybron Chemicals Inc., Birmingham, New Jersey .....	35
Paper chemicals business (from Cytec Industries) .....	<u>14</u>
	833
<i>Divestitures</i>	
U.S. animal health biologicals business (to Intervet International) .....	(27)
Troponwerke GmbH & Co. KG .....	(24)
Other .....	<u>(34)</u>
	(85)
Net effect on sales from continuing operations .....	<u>748</u>
Sale of 70 percent of the shares of the Agfa-Gevaert group .....	<u>(1,801)</u>
Total .....	<u>(1,053)</u>

We spent €200 million on restructuring in 2000, €449 million in 1999 and €242 million in 1998. In 2000, €61 million of these expenses related to the continuing integration of Chiron Diagnostics, which we acquired in 1998, and €48 million to our integration of the Lyondell polyols business, which we acquired in spring 2000. The streamlining of the styrenics activities of our Plastics business group required a further €32 million in 2000. In 1999, our integration of Chiron accounted for €111 million of restructuring expense, while we spent €169 million on streamlining our styrenics business.

We recognize research and development costs in accordance with IAS 38.

### **Bayer Group**

The following table shows sales and income for Bayer as a whole.

	<u>2000</u>	<u>Change from Previous Year (%)</u>	<u>1999</u>	<u>Change from Previous Year (%)</u>	<u>1998</u>
	(euros in millions, except percentage of sales data)				
Net sales .....	30,971	13.4	27,320	(2.6)	28,062
Gross profit .....	14,318	15.5	12,396	(2.0)	12,643
as percentage of sales (%) .....	46.2	—	45.4	—	45.1
Operating result .....	3,287	(2.1)	3,357	6.4	3,155
as percentage of sales (%) .....	10.6	—	12.3	—	11.2
Income before income taxes .....	2,990	5.4	2,836	4.0	2,728
Net income .....	1,816	(9.3)	2,002	24.0	1,614
as percentage of sales (%) .....	5.9	—	7.3	—	5.8

The following table shows a geographical breakdown of our sales from continuing operations.

	<u>2000</u>	<u>Change from Previous Year (%)</u>	<u>1999</u>	<u>Change from Previous Year (%)</u>	<u>1998</u>
	(euros in millions)				
Europe .....	11,630	11.2	10,456	0.7	10,384
North America .....	9,569	27.3	7,515	13.6	6,617
Asia/Pacific .....	4,926	44.6	3,406	23.9	2,748
Latin America/Africa/Middle East .....	3,355	13.0	2,970	8.9	2,727

### ***2000 compared with 1999***

#### *Net Sales*

Net sales represents the gross inflow of economic benefits from the sales of goods and services that we receive or that are receivable by us. Net sales excludes rebates and discounts that we give our customers as well as the amounts that we collect on behalf of third parties, such as sales taxes, goods and services taxes and value added taxes.

Our net sales from continuing operations increased 21.1 percent in 2000, to €29 billion. The primary internal factors that contributed to growth in net sales from continuing operations were increased sales volumes, accounting for 7.0 percent of the increase; acquisition activity, primarily our acquisition of Lyondell's polyols business, which contributed 3.0 percent of our net sales growth; and increased sales prices, which contributed 2.3 percent of the increase. In addition, translation of non-euro denominated revenue caused more than one third of this growth in net sales. Including discontinuing operations, our net sales increased 13.4 percent from 1999.

Sales in our Pharmaceuticals segment increased 22.7 percent in 2000. The introduction of new products or new dosage formulations for existing products made an important contribution to this increase. Further expansion of our field sales force also contributed to the increase in sales in terms of unit volume of existing products. Sales in our Consumer Care & Diagnostics segment increased 15.6 percent to €3.9 billion; such new products as Aleve Cold & Sinus and Alka-Seltzer Heartburn made an important contribution to this growth. Sales in our Crop Protection segment increased 12.8 percent due to increased unit volume, primarily in our imidacloprid products. Sales in our Animal Health segment increased 8.9 percent in 2000. The effects of divesting the animal health biological business in the United States were offset by the strength of the segment's other U.S. activities. Sales in our Plastics & Rubber segment advanced 25.7 percent in 2000. Sales in our Polyurethanes, Coatings & Colorants segment increased 30.0 percent. We attribute half of this increase to the Lyondell acquisition; other significant factors included increased volumes of existing products as well as price increases for some products. Sales in our Chemicals segment increased 17.8 percent. Higher volumes and the effect of currency exchange rate fluctuation were the primary causes of Chemicals' sales growth.

#### *Gross Profit*

Gross profit represents net sales after cost of goods sold and services provided. Cost of goods sold and services provided include the production costs of goods sold and the cost of goods purchased for resale.

Our gross profit from continuing operations increased 21.7 percent in 2000. The primary causes of this increase were a sustained upward trend in unit volume coupled with higher selling prices. Thus we were able to improve our margin despite a sharp increase in raw materials prices. These increases affected all our segments, primarily those with Polymers and Chemicals activities. Increases in the price of crude oil were the primary cause of the increased cost of our raw materials, although the effect on the market for individual raw materials varied. Prices for several of our raw materials, including acrylonitrile, benzol, butadiene, phenol and styrol more than doubled since the beginning of 1999. The most extreme case was toluol, whose price nearly tripled. Increased raw materials costs caused more than half of the 20.6 percent increase in our costs of goods sold in 2000. Currency translation effects also added significantly to this increase.

### *Operating Result*

Operating result represents gross profit after selling expenses, research and development expenses, general administration expenses and other operating income and expenses. We distinguish between our result from continuing and discontinuing operations.

Our result from continuing operations in 2000 before exceptional items increased €0.5 billion, or 19.1 percent, from the previous year, to €3.3 billion. We attribute this increase primarily to the performance of our Pharmaceuticals segment. Currency translation effects also contributed significantly to this increase. After net exceptional charges of €149 million, mainly for restructuring, this increase was 43.7 percent.

Our result from discontinuing operations comprised €99 million from Erdölchemie GmbH, €59 million from the Fibers business and €5 million from the DyStar group. Combining continuing and discontinuing operations, our operating result for 2000 declined 2.1 percent. This decline reflects the unusually high result from discontinuing operations for 1999, which included an exceptional gain of €1.03 billion from our sale of shares in Agfa's IPO.

In 2000, our selling expenses increased 22.3 percent, while research and development expenses increased 11.4 percent and general administration expenses increased 22.5 percent. Currency translation effects caused approximately half of these increases. Increased costs for shipping and advertising were additional factors in our increased selling expenses. Research and development activities in our Pharmaceuticals segment contributed disproportionately to our increase in research and development expense. We allocate the largest portion of our research and development budget to Pharmaceuticals, and this segment often shows the greatest increase from year to year as well. Given the particularly strong emphasis on research, we expect that this segment will continue to be the primary driver of our overall research and development costs. Costs related to our integration of a new enterprise management system contributed to the increase in general administration expenses. By contrast, our other net operating expenses decreased 16.9 percent, largely because restructuring expenses in 2000 were lower than in the previous year.

### *Non-Operating Result*

Non-operating result represents income and expenses from investments in affiliated companies, interest result and other non-operating result.

Our non-operating loss for 2000 increased 43 percent over the previous year. This improvement was due to an increase of €314 million in income from affiliated companies, primarily as a result of gains from the sale of our interests in Schein Pharmaceutical and Myriad Genetics. This increase was offset, in part, by an increase in net interest expense of €115 million due to issuances of debt securities, particularly commercial paper, to finance capital expenditures and acquisitions.

### *Income Before Income Taxes*

Our income before taxes from continuing operations in 2000 increased €1.1 billion, or 64 percent, from the previous year, to €2.8 billion due primarily to lower exceptional expenses in 2000. Including discontinuing operations, the increase in income was 5 percent.

### *Income Taxes*

Our income tax expense increased 40 percent from 1999. Our effective tax rate increased to 38 percent from the 1999 rate of 29 percent. We attribute this increase primarily to the fact that the 1999 effective tax rate reflected tax-free income from the sale of Agfa shares.

### *Net Income*

Minority shareholders' interest in 2000 increased 62.5 percent from 1999. The primary reason for this change was improved profitability from our partly-owned subsidiaries, particularly Bayer Yakuhin Ltd., a

Japanese pharmaceutical producer in which we had a 75.6 percent interest in 2000 (and which has since become our wholly-owned subsidiary). Bayer Yakuhiin achieved significant increases in both net sales and net income.

After minority interests, our net income from continuing operations in 2000 increased €0.8 billion, or 84 percent, to €1.6 billion (€2.26 per share) in 2000 from €0.9 billion (€1.23 per share) in 1999. Including discontinuing operations, our net income in 2000 decreased 9.3 percent.

### ***1999 compared with 1998***

#### *Net Sales*

Bayer's net sales in 1999 decreased 2.6 percent from 1998. Of this decrease, we attributed €2.5 billion, or 9.1 percent, to the Agfa divestiture. Sales from continuing operations increased by 8.3 percent. We attributed more than 5.0 percent of this increase to growth in volumes. Portfolio changes other than the Agfa divestiture had a positive impact of 2.8 percent. Currency fluctuations also had a positive effect, contributing 2.1 percent of the year-on-year increase. These favorable currency movements primarily reflected an increase in value of the U.S. dollar relative to the euro. Price erosion, however, had a negative impact of less than 2.0 percent. State intervention continued to have a negative effect on the health care industry in Europe and Japan, while the world market continued to expand. Some of our major customers (for example, those in the automotive, electrical/electronics and chemical industries) enjoyed a favorable business climate in 1999; nevertheless, a drop in selling prices, exacerbated by an increase in raw material costs, caused our margins to decline.

Sales in our Pharmaceuticals segment increased 15.3 percent in 1999. Sales in the Consumer Care and Diagnostics segment increased 25.1 percent. We attribute approximately three fourths of this increase to the effect of the Chiron Diagnostics acquisition at the end of 1998. Sales in our Crop Protection segment increased 6.5 percent in 1999. Although the agricultural industry expanded in Asia, low agricultural prices and low farm incomes diminished our sales to this sector, particularly in Latin America. Sales in our Animal Health segment increased 3.5 percent. Sales in our Plastics & Rubber segment advanced 6.8 percent in 1999. Of this increase, €72 million came from the plastic sheet business that we acquired in April 1999. Sales in our Polyurethanes, Coating & Colorants segment increased 7.6 percent. Sales in our Chemicals segment remained stable in 1999. Excluding sales from the citric acids, titanium dioxide, silicones and zeolites businesses, divested in 1998, and the effects of other restructuring measures taken in 1998, Chemicals sales in 1999 increased by 2.0 percent.

#### *Gross Profit*

Our cost of goods sold and services provided remained essentially stable in 1999 because the cost increase of 9.3 percent was roughly in proportion to the increase in sales from continuing operations of 8.3 percent. As a result, our gross profit from continuing operations in 1999 increased 7.2 percent from the previous year.

#### *Operating Result*

Income from continuing operations before exceptional charges in 1999 declined by 1.6 percent to €2.75 billion from €2.80 billion in 1998. The decline was mainly due to rising costs for raw materials, primarily petrochemicals. Lower margins on sales to the manufacturing industry, resulting from downward price pressure, also contributed to the decline. Expenses related to Year 2000 preparedness and process reengineering also contributed to the decline in operating result. These items affected most of our cost centers, especially our production and general administration costs. Although our selling expenses increased 6.5 percent, this increase was less than our 8.3 percent increase in sales, reflecting our reduction in sales force and lower shipping and advertising costs. Research and development costs increased 18.3 percent, primarily because a continuing trend towards intensified research activities in our Pharmaceuticals segment also reflected new collaborations with research partners. Our general administration costs remained essentially stable. Although we were able to achieve cost reductions in a number of areas that affect our general administration costs, expenses related to the Year 2000 and to the integration of an enterprise management system offset these savings.

Exceptional charges in 1999 totaled €575 million, an increase of €528 million from 1998. These exceptional charges included charges related to the streamlining of the styrenics activities of our Plastics business group, the

integration of Chiron Diagnostics, our commitment to help fund the federal German foundation “Remembrance, Responsibility, and the Future” founded to serve as the exclusive source of remedies for claims against German companies arising out of the national socialist era and World War II, and the closing of our Consumer Care business group’s facility in Elkhart, Indiana.

In 1999 we sold the majority of the shares of our former Agfa segment in an initial public offering. Accordingly, we recorded Agfa’s operating result of €103 million through June 1, 1999, the date of divestiture, as well as our gain from the sale of Agfa shares, under discontinuing operations. Further discontinuing operations were the Fibers business, with an operating result in 1999 of €23 million; the DyStar Group, with a loss in 1999 of €24 million; and Erdölchemie GmbH, with a profit of €46 million. Including discontinuing operations, our operating result for 1999 rose 6.4 percent from 1998. The increase was due primarily to the sale of our Agfa activities, which created a gain of €1.0 billion. Following this sale, our operating result no longer reflects the result of the businesses and activities of Agfa.

#### *Non-operating Result*

Non-operating result decreased to –€521 million in 1999 from –€427 million in 1998. We attributed this decrease primarily to expenses from investments in affiliated companies, which totaled €31 million in 1999 compared to income of €21 million from these investments in 1998. The main cause of that decrease was our sale of 70 percent of the shares of our former wholly-owned subsidiary Agfa. After this sale, Agfa no longer contributed to our operating result and was instead included at equity. A loss from this investment in 1999 caused our income from companies included at equity to decline. Interest expense — net increased 3.7 percent in 1999. This increase was the result of a 13.5 percent decrease in interest income, partly offset because lower financial debt resulted in reduced interest expense. Our interest income decreased at a higher rate, however, resulting in a net increase in expense. Other non-operating expense — net increased 13.5 percent, primarily due to higher net exchange losses in 1999. In 1999, the interest portion of interest-bearing provisions was €275 million, a decrease of €34 million compared with 1998.

#### *Income before Taxes*

With an increase in operating result of €202 million, and a decrease in non-operating result of €94 million, income before income taxes in 1999 increased 4.0 percent from the previous year. Our income before taxes from continuing operations in 1999 decreased €0.7 billion, or 28 percent.

#### *Income Taxes*

Income tax expense decreased 26.5 percent in 1999, primarily because of the tax-free income that we earned through the sale of Agfa shares. As a result, our effective income tax rate dropped from 41 percent to 29 percent. In 1999, income taxes comprised income taxes paid or accrued in individual countries totaling €500 million, a decrease of €363 million from 1998, and deferred taxes of €318 million, up €68 million from the previous year.

#### *Net Income*

Minority shareholders’ interest increased €15 million in 1999 from the 1998 figure of €1 million. This increase reflected both a €9 million increase in income to €16 million and the absence in 1999 of losses attributable to minority interest. The increase in minority interest income primarily reflected higher earnings of Bayer Yakuhin, Japan, of which we then owned 75.6 percent. In 1998, losses attributable to minority interest had totaled €6 million, which reflected small losses at a number of companies and offset a €5 million gain from other companies.

After minority interests, our net income from continuing operations in 1999 decreased €494 million, or 35.5 percent, to €898 million (€1.23 per share) from €1.39 billion (€1.91 per share) in 1998. Including discontinuing operations, our net income in 1999 increased 24 percent.

## Segment Data

### Pharmaceuticals

	<u>2000</u>	<u>Change from Previous Year (%)</u>	<u>1999</u>	<u>Change from Previous Year (%)</u>	<u>1998</u>
	(euros in millions)				
Net sales (external) . . . . .	6,140	22.7	5,003	15.3	4,340
Intersegment sales . . . . .	<u>39</u>	<u>(23.5)</u>	<u>51</u>	<u>50.0</u>	<u>34</u>
Operating result before exceptional items . . . . .	1,165	26.4	922	22.8	751
Operating result . . . . .	1,160	39.4	832	7.4	775

#### 2000 compared with 1999

Sales in our Pharmaceuticals business group increased 22.7 percent in 2000 to €6.1 billion. In 2000, sales of our three best-selling pharmaceutical products alone — Ciprobay/Cipro, Adalat and Lipobay/Baycol — were €3.6 billion. The operating result before exceptional items increased to €1.2 billion in 2000, an increase of 26.4 percent over 1999. We incurred net exceptional charges of €5 million in 2000.

#### 1999 compared with 1998

Pharmaceuticals' sales rose 15.3 percent, to €5.0 billion. We attribute this growth to increased demand for our products, most notably Ciprobay/Cipro, Avelox/Avalox and Lipobay/Baycol. Despite production shortfalls for biological products, we achieved a 22.8 percent increase in the segment's operating result before exceptional items. We incurred net exceptional charges of €90 million in 1999.

### Consumer Care & Diagnostics

	<u>2000</u>	<u>Change from Previous Year (%)</u>	<u>1999</u>	<u>Change from Previous Year (%)</u>	<u>1998</u>
	(euros in millions)				
Net sales (external) . . . . .	3,888	15.6	3,364	25.1	2,688
Intersegment sales . . . . .	<u>0</u>	<u>—</u>	<u>1</u>	<u>—</u>	<u>1</u>
Operating result before exceptional items . . . . .	311	79.8	173	(27.9)	240
Operating result . . . . .	177	—	16	(93.5)	248

#### 2000 Compared with 1999

Consumer Care & Diagnostics posted sales of €3.9 billion in 2000, an increase of 15.6 percent from the previous year. We attribute these sales increases primarily to the introduction of new products in the Consumer Care business group, chiefly Aleve Cold & Sinus, Alka-Seltzer Heartburn and Aspirin Migraine, as well as to growth in revenue from the products we acquired through our acquisition of Chiron Diagnostics.

To enhance the segment's performance, we initiated cost-cutting measures in its business groups, for example by eliminating less productive facilities and divesting unprofitable product lines. Because Diagnostics conducts the majority of its operations in the United States but a large proportion of its sales are in Europe and other non-U.S. markets, we believe that cost containment will be especially important in this business group as long as the dollar's value remains high compared with the euro and other currencies. The operating result before exceptional items increased to €0.3 billion in 2000, an increase of 79.8 percent over 1999. We incurred net exceptional charges of €134 million. These charges resulted from restructuring charges as well as from our decision to stop marketing Alka-Seltzer Plus and similar cold remedies containing the active ingredient phenylpropanolamine. Consumer Care began its launch of new formulations of these products in the United

States in 2001 and expects to complete the worldwide relaunch during 2002. Our restructuring measures also resulted in exceptional income of €20 million from several smaller divestitures, which partly offset the exceptional charges.

#### *1999 compared with 1998*

Sales of Consumer Care & Diagnostics increased 25.1 percent to €3.4 billion. In addition to being the crucial factor in Diagnostics' sales growth, the broadened product palette that we obtained through our acquisition of Chiron Diagnostics contributed 75 percent of the increase in sales for the segment as a whole. Significant increases in several important markets, such as North America, drove our worldwide sales growth. Weaker performance in other markets, however, partially offset this positive development. In particular, recessionary conditions in South America hurt our Consumer Care sales in that region.

The operating result before exceptional items decreased by 27.9 percent. The charge that we took for exceptional items totalled €157 million, more than half of which resulted from our Chiron acquisition.

#### **Crop Protection**

	<u>2000</u>	Change from Previous Year (%)	<u>1999</u>	Change from Previous Year (%)	<u>1998</u>
	(euros in millions)				
Net sales (external) . . . . .	2,456	12.8	2,177	6.5	2,045
Intersegment sales . . . . .	<u>97</u>	<u>16.9</u>	<u>83</u>	<u>9.2</u>	<u>76</u>
Operating result before exceptional items . . . . .	401	4.7	383	(12.8)	439
Operating result . . . . .	402	(6.9)	432	(1.4)	438

#### *2000 compared with 1999*

In 2000, as in the previous year, stiff competition, low commodity prices and depressed farm incomes created difficulties in the agricultural sector. Nevertheless, Crop Protection's sales increased 12.8 percent to €2.5 billion. In addition to the effects of currency exchange rate fluctuations, we attribute this increase primarily to strong growth in demand for Confidor and Gaucho, our imidacloprid-based insecticides. The operating result before exceptional items increased 4.7 percent in 2000. The primary factors driving this positive development were our imidacloprid products.

#### *1999 compared with 1998*

The agricultural sector in 1999 faced low commodity prices and depressed farm incomes. Markets in South America and the states of the former Soviet Union were particularly weak. The consolidation process that had begun in earlier years continued. "Green" biotechnology, the use of natural alternatives to chemical crop protection substances such as ours, began to compete in the market, inflicting significant losses in the herbicide market in particular.

External sales in Crop Protection grew 6.5 percent to €2.2 billion in 1999. We attribute these increases to a strongly increased demand for our Confidor and Gaucho insecticides, as well as to increased demand for our seed treatments and garden/professional care products. Also contributing was the introduction of new products, including our Flufenacet herbicides and Teldor. In addition, acquisition activity (primarily our acquisition of pbi Home & Garden in the UK and 50 percent of the Gustafson group in North America) accounted for €70 million of our external sales. Exchange rate fluctuation also had a positive effect on our Crop Protection sales. Price pressure was strongest in the herbicides market, but this market is the smallest of those that our Crop Protection business group serves. In 1999, Crop Protection's operating result before exceptional items decreased 12.8 percent to €383 million.

## *Animal Health*

	<u>2000</u>	<u>Change from Previous Year (%)</u>	<u>1999</u>	<u>Change from Previous Year (%)</u>	<u>1998</u>
	(euros in millions)				
Net sales (external) . . . . .	999	8.9	917	3.5	886
Intersegment sales . . . . .	<u>6</u>	<u>—</u>	<u>6</u>	<u>—</u>	<u>1</u>
Operating result before exceptional items . . . . .	157	14.6	137	10.5	124
Operating result . . . . .	182	80.2	101	(17.9)	123

### *2000 compared with 1999*

Animal Health's sales grew 8.9 percent, to €999 million. We attribute this increase primarily to strong growth in demand for the anti-flea preparation Advantage, the flagship product of our Animal Health segment. Increased competition from generic products forced us to lower prices, however. These lower prices slightly offset our sales growth.

Animal Health's operating result before exceptional items increased 14.6 percent in 2000. This increase reflected improvements in Animal Health. The primary factors driving this positive development were our products for livestock.

### *1999 compared with 1998*

External sales in Animal Health grew 3.5 percent to €917 million in 1999. We attribute these increases to a strongly increased demand of our Animal Health products for small and companion animals. Exchange rate fluctuation also had a positive effect on Animal Health sales. Our sales growth was partly offset by price reductions in response to competition from generic products. In 1999, Animal Health's operating result before exceptional items increased 10.5 percent to €137 million. We attribute this decrease primarily to market weakness in the Americas.

## *Plastics & Rubber*

	<u>2000</u>	<u>Change from Previous Year (%)</u>	<u>1999</u>	<u>Change from Previous Year (%)</u>	<u>1998</u>
	(euros in millions)				
Net sales (external) . . . . .	5,816	25.7	4,627	6.8	4,331
Intersegment sales . . . . .	<u>122</u>	<u>7.0</u>	<u>114</u>	<u>22.6</u>	<u>93</u>
Operating result before exceptional items . . . . .	560	26.4	443	(11.4)	500
Operating result . . . . .	515	102.8	254	(43.9)	453

### *2000 compared with 1999*

Sales of our Plastics & Rubber segment increased 25.7 percent to €5.8 billion. Increased demand and volumes as well as currency exchange rate fluctuations caused a significant part of the increase. In addition, we were able to implement price increases in the Plastics business group, although prices held stable or declined slightly in other business groups. We achieved a 26.4 percent increase in the operating result before exceptional items despite lower demand and weak pricing in many of the markets that this segment serves. Severe increases in raw material and energy costs (which we were able to pass on to customers only to a limited extent) were the primary obstacle to a more substantive increase. Because of a rise in crude oil prices, our most severe price increases were for energy and petrochemical-derived raw materials.

### *1999 compared with 1998*

In 1999 our Plastics & Rubber segment sales rose to €4.6 billion (a 6.8 percent increase). Increased volumes, particularly in the Plastics business group, were a major positive factor in our sales growth; exchange rate effects also had a positive effect. Strong growth in the Asian markets also contributed to our increased sales, as Asian economies recovered from a downturn in 1997.

Although we increased sales of our Plastics & Rubber segment, higher raw material costs squeezed margins contributing to the decline in operating result before exceptional items.

### ***Polyurethanes, Coatings & Colorants***

	<u>2000</u>	<u>Change from Previous Year (%)</u>	<u>1999</u>	<u>Change from Previous Year (%)</u>	<u>1998</u>
	(euros in millions)				
Net sales (external) . . . . .	5,076	30.0	3,904	7.6	3,629
Intersegment sales . . . . .	<u>462</u>	<u>(4.1)</u>	<u>482</u>	<u>(11.7)</u>	<u>546</u>
Operating result before exceptional items . . . . .	518	(21.2)	657	8.8	604
Operating result . . . . .	473	(23.6)	619	10.9	558

### *2000 compared with 1999*

Sales of our Polyurethanes, Coatings & Colorants segment grew by 30.0 percent to €5.1 billion. Increased demand and volumes as well as currency exchange rate fluctuations caused a significant part of the increase, whereas prices held stable or declined slightly. A major cause of the strong sales growth in Polyurethanes was our acquisition of Lyondell's polyols business. Before this acquisition, we produced only one of the two main components of polyurethane substances. By acquiring the ability to produce polyols, the other main component, we filled a substantial gap in our production capabilities and generated significant additional business.

Resulting from lower demand and weak pricing in many of the markets that this segment serves the operating result before exceptional items of Polyurethanes, Coatings & Colorants decreased 21.2 percent. Severe increases in raw material and energy costs (which we were able to pass on to customers only to a limited extent) were the primary obstacle to an increase. Because of a rise in crude oil prices, our most severe price increases were for energy and petrochemical-derived raw materials. In addition, we bore additional expenses arising from integrating Lyondell's former polyols business.

### *1999 compared with 1998*

In 1999, Polyurethanes, Coatings & Colorants' sales increased by 7.6 percent to €3.9 billion. Increased volumes, particularly in the segment's Coatings & Colorants business group, were a major positive factor in our sales growth; exchange rate effects also had a positive effect. Strong growth in the Asian markets also contributed to our increased sales, as Asian economies recovered from a downturn in 1997. Our prices to customers, however, held stable or declined, reducing growth in sales through most of the segment.

Despite our ability to increase the segment's sales, higher raw material costs for most business groups squeezed margins. Our operating result before exceptional items increased 8.8 percent.

## Chemicals

	<u>2000</u>	<u>Change from Previous Year (%)</u>	<u>1999</u>	<u>Change from Previous Year (%)</u>	<u>1998</u>
	(euros in millions)				
Net sales (external) . . . . .	4,275	17.8	3,630	(1.4)	3,682
Intersegment sales . . . . .	<u>466</u>	<u>(2.5)</u>	<u>478</u>	<u>(10.0)</u>	<u>531</u>
Operating result before exceptional items . . . . .	442	7.5	411	(15.1)	484
Operating result . . . . .	462	32.8	348	(14.7)	408

### 2000 compared with 1999

Our Chemicals segment comprises the Basic and Fine Chemicals, Specialty Products, Haarmann & Reimer, H.C. Starck and Wolff Walsrode business groups. This segment's increased sales reflects sales growth across its business groups that was generally moderate and steady with the exception of H.C. Starck, which in relative terms significantly outperformed the other groups within the segment.

In the segment's Basic and Fine Chemicals business group, sales rose to €1.0 billion (a 13.5 percent increase); Specialty Products' sales increased to €1.3 billion (up 14.2 percent). Sales increased at Haarmann & Reimer to €865 million (11.6 percent), at H.C. Starck to €665 million (52.9 percent) and at Wolff Walsrode to €427 million (10.9 percent). Throughout the segment, higher volumes and increased demand contributed to sales growth of €645 million, as did currency exchange rate fluctuations, which accounted for approximately a third of this increase. The product families contributing most significantly to this trend were H.C. Starck's tantalum products as well as chemicals for the electronics industry. The continuing strong growth in sales of chemicals for the microelectronics and telecommunications sectors, which particularly benefited the segment's H.C. Starck business group, offset the effect of disappointing sales of life sciences intermediates, a market weakened by unfavorable conditions in the agricultural sector. Despite growth in volume and demand, prices for our products generally remained stable or eroded. We were able to pass the increasing expense of raw materials on to customers only in exceptional cases.

Growth in the Chemicals segments' operating result before exceptional items lagged behind its growth in sales at 7.5 percent. The primary factor affecting the operating result of the Chemicals segment was a severe increase in raw materials prices which had a particularly strong adverse effect on our Basic and Fine Chemicals business group.

### 1999 compared with 1998

Sales of our Chemicals segment remained essentially stable in 1999. Because of economic difficulties in many of the markets and industries that are important for our Chemicals segment's revenue, we experienced significant downward price pressure from many of our customers. Intensified competition, especially in the basic chemicals field, also increased price pressure. This downward trend in pricing largely offset the benefit of increased volumes, although we did achieve strong growth in sales of chemicals and special metals products for the electronics industry. Disregarding sales of citric acids, titanium dioxide, silicones and zeolites (businesses that we divested in 1998) and the effects of other restructuring measures, our Chemicals sales increased 2 percent from their 1998 level. In the segment's Basic and Fine Chemicals business group, sales declined 6.2 percent to €886 million. Sales of Specialty Products rose 3.0 percent to €1.1 billion. Haarmann & Reimer's sales declined 6.9 percent, to €775 million. H&R's 1998 sales, however, included €102 million of revenue from its former Food Ingredients business, which we sold in 1998; H&R's sales from continuing operations showed a 5.4 percent increase. H.C. Starck's sales rose 13.6 percent to €435 million. Wolff Walsrode's sales dropped 5.2 percent to €385 million.

The decline in Chemicals' operating result before exceptional items reflected the negative effects of increased raw materials costs, downward price pressure and a generally unfavorable climate in most of the segment's markets.

## LIQUIDITY AND CAPITAL RESOURCES 2000, 1999 AND 1998

### Cash Flows

In recent years, our primary source of liquidity has been cash from operations. We use cash in investing activities primarily for acquisitions as well as for additions to property, plant, equipment and investments. We use cash in financing activities primarily to retire debt and pay dividends. At December 31, 2000, we had cash, cash equivalents and working capital totaling €9.30 billion. We believe that our working capital is sufficient for our present requirements. There are no material legal or economic restrictions on the ability of member companies of the Bayer Group to transfer funds to Bayer AG.

The following table summarizes our cash flows in each of the last three years:

	2000	Change from Previous Year (%)	1999	Change from Previous Year (%)	1998
(euros in millions)					
Gross operating cash flow . . . . .	4,164	30.5	3,192	(3.7)	3,315
<i>Thereof discontinuing operations</i> . . . . .	214	(28.7)	300	(38.1)	485
Changes in working capital . . . . .	(1,073)	—	1	—	(546)
Net cash provided by operating activities . . . . .	3,091	(3.2)	3,193	15.3	2,769
<i>Thereof discontinuing operations</i> . . . . .	218	(21.0)	276	(54.2)	602
Net cash provided by (used in)					
investing activities . . . . .	(6,189)	—	71	—	(3,192)
<i>Thereof discontinuing operations</i> . . . . .	(181)	—	2,473	—	(368)
Net cash provided by (used in)					
financing activities . . . . .	772	—	(1,669)	—	(122)
<i>Thereof discontinuing operations</i> . . . . .	18	—	(29)	—	34
Change in cash and cash equivalents . . . . .	(2,326)	—	1,595	—	(545)
Cash and cash equivalents at beginning					
of period . . . . .	2,812	137.5	1,184	(32.2)	1,746
Change in scope of consolidation . . . . .	(3)	—	19	—	(18)
Exchange rate movements . . . . .	8	(42.9)	14	—	1
Cash and cash equivalents at end of year . . . . .	491	(82.5)	2,812	137.5	1,184
Marketable securities and other instruments . . . . .	213	(35.1)	328	(38.9)	537
Liquid assets as per balance sheets . . . . .	704	(77.6)	3,140	82.5	1,721

### Cash from Operating Activities

Cash from operating activities was €4.2 billion in 2000, €3.2 billion in 1999 and €3.3 billion in 1998. In 2000, the gross cash provided by operating activities increased 30.5 percent from 1999. We attribute this increase mainly to the higher operating result from continuing operations in 2000. In 1999, gross operating cash flow declined 3.7 per cent from the previous year, primarily because of a lower operating result from continuing operations than in 1998.

In 2000, business expansion led to a substantial increase in working capital and thus a reduction of €0.1 billion, or 3.2 percent, in net cash provided by operating activities. The higher working capital reflected both growth in inventories of €0.8 billion and an increase in trade accounts receivable to €0.5 billion. An increase in trade accounts payable to €0.4 billion partly offset these two factors. In 1999, net cash provided by operating activities increased 15.3 percent from the previous year, primarily because working capital had been higher in 1998 than in 1999. Total working capital increased by €1.1 billion during 2000, having remained essentially stable from 1998 to 1999.

### *Investing activities*

Bayer's principal liquidity requirement in recent years has been for acquisitions and for purchases of property, plant and equipment. During the same period, our primary sources of cash inflows from investing activities have been sales of property, plant and equipment; interest and dividends received; and marketable securities. In 2000, we had a net cash outflow for investing activities of €6.2 billion. We had cash receipts of €0.6 billion from sales of property, plant and equipment and from inflows from interest and dividend receipts and from marketable securities. This figure only slightly offset our €4.1 billion for acquisitions and €2.6 billion for additions to property, plant, equipment and investments during 2000. There was a net cash inflow from investing activities of €0.1 billion in 1999. The €2.2 billion in proceeds from our sale of Agfa shares and our €0.6 billion in proceeds from the sale of companies formerly owned by Agfa-Gevaert N.V. at the beginning of 1999 led to a net cash inflow of €2.6 billion. This inflow plus €0.4 billion in interest receipts and proceeds from redemptions of marketable securities offset cash outflows of €2.6 billion for capital expenditures and €0.3 billion for acquisitions. The net cash outflow of €3.2 billion in 1998 reflected €4.1 billion invested in property, plant and equipment and acquisitions, as partially offset by cash inflows.

### *Financing Activities*

Financing activities in 2000 provided us with a net cash inflow of €0.8 billion, with net borrowings of €2.1 billion and dividend and interest payments of €1.3 billion. In 1999, we had a net cash outflow of €1.7 billion from financing activities. We used part of the operating cash flow to reduce net borrowings by €0.6 billion. Bayer Corporation, Bayer AG's wholly-owned U.S. subsidiary, redeemed on maturity \$300 million of 7.75 percent Notes issued in 1994. Disbursements for payment of Bayer AG's dividend for 1998 came to €0.8 billion; interest payments totaled €0.3 billion. In 1998, net cash used in financing activities was €0.1 billion, reflecting our higher net borrowings to finance that year's acquisitions.

See "— Borrowings" below for a discussion of the times our existing debt will mature and of our potential plans for obtaining future financing by issuing new debt.

We believe that we have sufficient borrowing capacity to meet our foreseeable needs. To provide flexible short- to medium-term funding, we established a \$5 billion global commercial paper program and a €2 billion European Medium-Term Note program in 2000, which we increased to €8 billion in 2001. Our committed and uncommitted bank lines of credit currently amount to more than €4 billion. In addition to these sources of funding, we may issue debt securities in the capital markets to meet our longer-term funding requirements.

### *Capital Expenditures*

We generally fund our capital expenditures with cash flow from operations and, if such funds are not sufficient, through other cash on hand and from the sale of liquid investments, including cash equivalents and marketable securities. We fund any further capital expenditures with borrowings. Capital expenditures amounted to €2.6 billion in each of 2000 and 1999, and to €2.7 billion in 1998.

Our major capital expenditures since 1998 included:

<u>Year</u>	<u>Segment</u>	<u>Description</u>
2000	Pharmaceuticals	— Construction of process development pilot plant, Wuppertal, Germany (completed 2000)
	Consumer Care & Diagnostics	— Expansion of solids plant, Bitterfeld, Germany
	Crop Protection	— Fungicides production facility, Dormagen, Germany (completed 2000) — Expansion of solids formulation plant (parasiticides, insecticides, rodenticides), Belford Roxo, Brazil

<u>Year</u>	<u>Segment</u>	<u>Description</u>
1999	Plastics & Rubber	<ul style="list-style-type: none"> <li>— Expansion of polycarbonate capacities (Makrolon® and bisphenol A), Map Ta Phut, Thailand</li> <li>— Construction of Therban® facility, Leverkusen, Germany (completed 2000)</li> </ul>
	Polyurethanes, Coatings & Colorants	<ul style="list-style-type: none"> <li>— Facility for continuous production of long chain polyethers by our proprietary IMPACT process, Channelview, Texas</li> <li>— Expansion of coating raw materials production, Leverkusen, Germany</li> </ul>
	Chemicals	<ul style="list-style-type: none"> <li>— Construction of sulfuric acid facility, Leverkusen, Germany</li> <li>— Expansion/modification of electrolysis plant, Leverkusen, Germany</li> <li>— Construction of polyaspartic acid facility, Leverkusen, Germany</li> <li>— Expansion of tantalum production at H.C.Starck, Germany and Japan</li> </ul>
	Pharmaceuticals	<ul style="list-style-type: none"> <li>— Expansion of capacities for Kogenate®, Berkeley, California</li> <li>— Modernization and expansion of blood plasma facilities, Clayton, North Carolina</li> <li>— Launch of plant for Avelox®/Avalox®, Leverkusen, Germany (Completed 1999)</li> </ul>
	Consumer Care & Diagnostics	<ul style="list-style-type: none"> <li>— Expansion of production capacities for urine chemistry systems, Mishawaka, Indiana</li> </ul>
	Crop Protection	<ul style="list-style-type: none"> <li>— Construction of multi-purpose facility for crop protection products, Dormagen, Germany</li> </ul>
	Animal Health	<ul style="list-style-type: none"> <li>— Expansion and start-up of new production facilities for animal health products in Shawnee, Kansas (completed 1999)</li> </ul>
	Plastics & Rubber	<ul style="list-style-type: none"> <li>— Expansion of bisphenol A and Makrolon® capacities, Antwerp, Belgium</li> <li>— Modernization/Expansion of (halo)butyl rubber facilities, Sarnia, Ontario</li> </ul>
	Polyurethanes, Coatings & Colorants	<ul style="list-style-type: none"> <li>— Expansion of TDA/TDI capacity, Baytown, Texas</li> </ul>
	Chemicals	<ul style="list-style-type: none"> <li>— Expansion of fine chemicals production, Leverkusen, Germany</li> <li>— Modernization and expansion of tantalum/niobium facility, Map Ta Phut, Thailand (completed 1999)</li> <li>— Ion exchange resin facility, Bitterfeld, Germany (completed 1999)</li> </ul>

<u>Year</u>	<u>Segment</u>	<u>Description</u>
1998	Crop Protection	— Formulating plant for crop protection products (Bayer Zhongxi Agrochemical Co. Ltd.), Shanghai, China
	Animal Health	— Production facility for animal health products, Chengdu, China
	Plastics & Rubber	— Bisphenol A plant, Bayton, Texas (completed 1998) — Expansion of polycarbonate capacities in Antwerp, Belgium and Baytown, Texas (completed 1998) — Expansion of latex facilities (PolymerLatex GmbH), Marl, Germany (completed 1998)
	Polyurethanes, Coatings & Colorants	— Rock salt electrolysis to supply the Plastics and Polyurethanes business groups, Baytown, Texas (completed 1998) — Expansion of MDI monomer capacity, Baytown, Texas (completed 1998)
	Chemicals	— Chrome plant, Isando, South Africa, and expansion of facilities for chrome tanning agents, Merebank, South Africa (both completed 1998) — Production of leather chemicals, Wuxi, China (completed 1998) — Nickel hydroxide production facility, Sarnia, Ontario (completed 1998) — Expansion of flavor formulation plant, Holzminden, Germany

## **Commitments**

### ***Investments***

We expect to spend €7.25 billion (including the assumption of debt of €1.9 billion) to acquire Aventis' CropScience business. In addition to the effect of the CropScience acquisition, we expect that our capital expenditures will increase slightly over the next several years in order to maintain existing facilities, to meet changing regulatory, health, safety and environmental law requirements, to achieve process improvement and to facilitate the launch and manufacture of new products.

For 2001, we originally planned investments totaling €3.1 billion. In light of world economic developments in that year, we did not spend this full amount. As in recent years, the main focus of our capital spending will be in our Polymers business, for example the expansion of polycarbonates capacities in Asia, Europe and North America.

### ***Other Commitments***

In 2000, our minimum non-discounted future lease payments relating to long-term lease and rental arrangements totaled €883 million, compared with €851 million in 1999. Of this amount, €285 million represented future payments under financial leases. Under these leases, Bayer companies are regarded as economic owners of the leased assets, which we capitalize on our balance sheet. In 1999 this figure was €277 million.

Our financial commitment for orders placed under purchase agreements relating to planned or ongoing capital expenditure projects totaled €446 million in 2000. We expect to pay the majority of this amount in 2001. In 1999, this figure was €391 million.

We will fund approximately €349 million during the coming years in connection with our various research collaborations and approximately €334 million in connection with other commitments based upon the achievement of certain milestones or other specific conditions.

## Borrowings

Our consolidated financial statements reflect borrowings as “financial obligations”, which include debentures, liabilities to banks, liabilities under lease agreements, liabilities from the issuance of promissory notes, commercial paper and other financial obligations. Our financial obligations at December 31, 2000 were €6.67 billion, compared to €4.47 billion at December 31, 1999; financial obligations at December 31, 1998 were €4.73 billion. Our short-term financial obligations at December 31, 2000 were €3.86 billion, compared with €2.11 billion at December 31, 1999 and €2.33 billion at December 31, 1998.

During 2001, we expect to repay financial obligations in the total amount of €3.9 billion. The following table shows the anticipated maturities of our outstanding financial obligations at December 31, 2000.

Maturing in					
<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>After 2005</u>
(euros in billions)					
3.9	0.9	0.1	*	0.3	1.5

\* Less than €100 million.

## Funding and Treasury Policies

Like any business, we may be exposed to interest rate risk. Because of the global nature of our business, we are also exposed to currency-related risks such as exchange rate and translation risk. To hedge our risks, we use primarily over-the-counter derivative instruments, particularly forward foreign exchange contracts, option contracts, interest rate swaps, and interest and principal currency swaps. We do not use derivative instruments for trading or other speculative purposes.

Interest rate risk applies mainly to receivables and payables with maturities of over one year. Items with these long maturities are not material to our operations but are relevant to our investments and financial obligations. Here, derivative financial instruments are our main method of interest rate hedging. We use interest rate swaps to convert a small portion of our floating rate investments into, in effect, fixed rate investments. Short-term interest rate hedging contracts (including interest and principal currency swaps) totaled €0.3 billion in 2000 and €1.3 billion in 1999. In 2000, hedges maturing in more than one year represented €3.2 billion and, in 1999, €1.4 billion.

Because a substantial portion of Bayer’s assets, liabilities, sales and earnings are denominated in currencies other than the euro-zone currencies, we have translation exposure to fluctuations in the values of these currencies relative to the euro. These currency fluctuations, especially the fluctuation of the value of the U.S. dollar relative to the euro, can have a material impact on our results of operations. For example, an increase in the value of the U.S. dollar relative to the euro will increase the euro value of Bayer’s sales and earnings made in the dollar zone and increase the competitiveness of its products produced in Europe against products exported from the United States. In 1999 and 2000, the effects of currency fluctuations were positive, increasing our total sales by €2.2 billion in 2000 and €0.6 in 1999. This effect was mainly due to an increase of the value of the U.S. dollar compared to the euro (the average relative value of one euro in 2000 was \$0.93, compared with average values of \$1.07 in 1999 and \$1.11 in 1998). During 1998, exchange rate fluctuations, particularly with respect to Japanese yen, had a negative effect, depressing sales by €0.2 billion.

In order to mitigate the impact of currency exchange fluctuations, we hedge a portion of our risk through the use of derivative financial instruments, particularly forward foreign exchange contracts and currency options. Our Corporate Treasury department has the central responsibility for managing our currency exposures and using currency derivatives. We establish the maturity dates of hedging contracts according to the anticipated cash flows of the Bayer Group. Our policy is to use a mixture of instruments depending upon our view of market conditions based on fundamental and technical analysis. As of December 31, 2000, we had entered into forward foreign exchange contracts and currency swaps with a nominal value of €3.42 billion, compared to €2.34 billion in 1999.

Our aggregate direct transaction risk from sales and purchases in foreign currencies was approximately €2.9 billion at December 31, 2000, consisting primarily of dollars (\$1.8 billion), Japanese yen (¥70 billion) and

British pounds sterling (£0.1 billion). We do not anticipate significant changes for 2001. Since the introduction of the euro on January 1, 1999, we no longer face transaction risk in member currencies of the euro zone.

For more information, see Item 11, *Quantitative and Qualitative Disclosures about Market Risk* and Item 12, *Descriptions of Securities Other Than Equity Securities*.

### **Inflation, Seasonality and Cyclicity**

Inflation has not had a material effect on our operating results in recent years. Seasonality affects only a few of our business lines, and does not materially affect our business as a whole. However, a number of our business groups are subject to cyclicity, either directly or because of the effect of cyclicity on their customers' businesses, especially in agricultural products. A general slowdown in worldwide agriculture has affected our Crop Protection and Animal Health segments as well as our Chemicals segment's sales to customers in the agrochemicals business. Nevertheless, our diversified palette provides some protection from cyclicity. In recent years, for example, strong demand for our Chemicals products from the electronics industry has offset weakening demand from the agricultural sector.

## FIRST HALF YEAR 2001 AND 2000

### OVERVIEW

#### Bayer Group

The following table shows sales and income for Bayer as a whole.

	<u>Six months ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u> (euros in millions)	<u>Six months ended June 30, 2000</u>
Net sales . . . . .	15,972	4.8	15,238
Gross profit . . . . .	7,154	3.0	6,946
as percentage of sales (%) . . . . .	44.8	—	45.6
Operating result . . . . .	1,671	(16.2)	1,994
as percentage of sales (%) . . . . .	10.5	—	13.1
Income before income taxes . . . . .	1,441	(18.9)	1,776
Net income . . . . .	1,006	(2.6)	1,033
as percentage of sales (%) . . . . .	6.3	—	6.8

The following table shows a geographical breakdown (by market) of our sales from continuing operations.

	<u>Six month ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u> (euros in millions)	<u>Six month ended June 30, 2000</u>
Europe . . . . .	6,546	10.6	5,916
North America . . . . .	4,879	4.8	4,657
Asia/Pacific . . . . .	2,509	5.6	2,377
Latin America/Africa/Middle East . . . . .	1,684	8.7	1,549

#### *Six months ended June 30, 2001 compared with six months ended June 30, 2000*

##### *Net Sales*

Economic growth slowed in the second quarter, especially in Germany and other European countries and in North America. The slowdown of these economies is having an increasingly adverse effect on the markets in Asia.

Raw material costs remain high, and we have not generally been able to offset these costs through higher selling prices. Demand in major customer industries dropped. Temporary production problems for some of our biological products also had an adverse effect.

Our sales from continuing operations rose by €1.1 billion, or 7.7 percent, to €15.6 billion. Portfolio changes and price adjustments accounted for 4.4 and 3.7 percentage points, respectively, while a 1.7 percent improvement in exchange rates was offset by lower volumes of 2.1 percent attributable to the economic downturn. The sales of our discontinuing operations, the Fibers and EC Erdölchemie (until April 30, 2001) business groups, went down by €0.4 billion, or 52.1 percent, to €0.4 billion. The discontinuing operations included, net sales increased €0.7 billion, or 4.8 percent, to €16.0 billion.

The following table shows, in an overview, the developments in net sales of our seven business segments:

<u>Business segment</u>	<u>Six months ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u> (euros in millions)	<u>Six months ended June 30, 2000</u>
Pharmaceuticals . . . . .	2,932	2.5	2,861
Consumer Care & Diagnostics . . . . .	1,997	5.9	1,886
Crop Protection . . . . .	1,609	1.9	1,579
Animal Health . . . . .	483	(6.0)	514
Plastics & Rubber . . . . .	2,989	6.3	2,812
Polyurethanes, Coatings & Colorants . . . . .	2,682	11.5	2,406
Chemicals . . . . .	2,496	18.6	2,104

#### *Gross Profit*

Gross profit represents net sales after cost of goods sold and services provided. Cost of goods sold and services provided include the production costs of goods sold and the cost of goods purchased for resale.

Despite a sales increase of 7.7 percent, our gross profit from continuing operations increased only €0.2 billion, or 3.0 percent, to €7.2 billion. Cost of goods sold, which had increased 12.1 percent from the previous period, cut into our margins.

#### *Operating Result*

Operating result represents gross profit after selling expenses, research and development expenses, general administration expenses and other operating income and expenses. We distinguish between our results from continuing and discontinuing operations.

Our operating result from continuing operations before exceptional items decreased €0.5 billion, or 23.3 percent, to €1.5 billion. This decrease was due mainly to production problems for biological products, the sustained high cost of raw materials and a drop in demand from major customer industries.

The operating result from our discontinuing operations of the Fibers and EC Erdölchemie (until April 30, 2001) business groups increased €0.2 billion to €0.3 billion, which includes €0.3 billion in exceptional income from the sale of our 50 percent interest in EC Erdölchemie.

Our operating result including discontinuing operations fell by €0.3 billion, or 16.2 percent, to €1.7 billion.

The following table shows, in an overview, the developments in operating result before exceptional items of our seven business segments:

<u>Business segment</u>	<u>Six months ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u> (euros in millions)	<u>Six months ended June 30, 2000</u>
Pharmaceuticals . . . . .	315	(47.1)	596
Consumer Care & Diagnostics . . . . .	130	0	130
Crop Protection . . . . .	370	(4.6)	388
Animal Health . . . . .	83	(16.2)	99
Plastics & Rubber . . . . .	316	21.1	261
Polyurethanes, Coatings & Colorants . . . . .	116	(65.5)	336
Chemicals . . . . .	293	18.1	248

#### *Non-Operating Result*

The non-operating result decreased by 5.5 percent to –€0.2 billion because of higher interest expense.

### *Income Before Income Taxes*

Our income before taxes from continuing operations decreased €0.6 billion, or 34.0 percent, to €1.1 billion. Including discontinuing operations, the decrease in income before taxes was 18.9 percent.

### *Income Taxes*

Income tax expense was down by €0.3 billion because of tax-free income from the sale of our interest in EC Erdölchemie, bringing the effective tax rate down 10.9 percentage points to 30.3 percent. Disregarding this tax-free income, the tax rate was 38.8 percent.

### *Net income*

After minority interests, net income from continuing operations decreased €273 million, or 28.0 percent, to €702 million. Including discontinuing operations, our net income decreased €27 million to €1,006 million.

## **SEGMENT DATA**

### **Pharmaceuticals**

	<u>Six month ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u>	<u>Six month ended June 30, 2000</u>
		(euros in millions)	
Net sales (external) . . . . .	2,932	2.5	2,861
Intersegment sales . . . . .	<u>18</u>	<u>(10.0)</u>	<u>20</u>
Operating result before exceptional items . . . . .	315	(47.1)	596
Operating result . . . . .	323	(47.0)	610

Pharmaceuticals' sales grew by 2.5 percent. The main reason for this slow growth was the delay on product releases of Kogenate. Sales in the business group's Ethical Products unit, however, rose 7.6 percent, driven primarily by our anti-infective Avalox/Avelox and the cholesterol-lowering drug Lipobay/Baycol.

The segment's operating result before exceptional items dropped by 47.1 percent to €0.3 billion due to production problems for biological products. This led to special charges of €170 million in the first half. We have initiated a number of programs intended to improve profitability in this segment.

### **Consumer Care & Diagnostics**

	<u>Six month ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u>	<u>Six month ended June 30, 2000</u>
		(euros in millions)	
Net sales (external) . . . . .	1,997	5.9	1,886
Intersegment sales . . . . .	<u>15</u>	<u>—</u>	<u>0</u>
Operating result before exceptional items . . . . .	130	—	130
Operating result . . . . .	118	31.1	90

Consumer Care & Diagnostics posted a 5.9 percent sales increase, largely as a result of the growth rates for our Baygon household insecticide in Indonesia and the expansion of business activities in China. In addition, demand was strong for Canesten and Talcid in Europe and for Aspirin in North and Central America. Diagnostics contributed to increased sales with growth overall, the largest increases being in Europe, India and Latin America.

The segment's operating result before exceptional items remained stable at €0.1 billion.

Consumer Care is seeking to identify savings potentials, and Diagnostics has already begun to improve earnings through a restructuring program. To improve performance in the Diagnostics business group, we have acquired development, manufacturing and marketing rights for products to detect hepatitis C and HIV antibodies.

### Crop Protection

	<u>Six month ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u>	<u>Six month ended June 30, 2000</u>
	(euros in millions)		
Net sales (external) . . . . .	1,609	1.9	1,579
Intersegment sales . . . . .	<u>77</u>	<u>37.5</u>	<u>56</u>
Operating result before exceptional items . . . . .	370	(4.6)	388
Operating result . . . . .	370	(3.1)	382

Sales in the Crop Protection business segment increased 1.9 percent following the acquisitions of the Flint product line and Mikado corn herbicide. The sluggishness of the economy in the United States and Latin America had an adverse effect, while sales in Europe were hampered by weather-related sales declines in products for cereals and mounting competitive pressure from generic herbicides. The segment's operating result before exceptional items declined 4.6 percent to €0.4 billion.

### Animal Health

	<u>Six month ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u>	<u>Six month ended June 30, 2000</u>
	(euros in millions)		
Net sales (external) . . . . .	483	(6.0)	514
Intersegment sales . . . . .	<u>5</u>	<u>—</u>	<u>5</u>
Operating result before exceptional items . . . . .	83	(16.2)	99
Operating result . . . . .	83	(16.2)	99

Sales in Animal Health declined 6.0 percent. The major cause of this decline was our divestiture of our former U.S. livestock vaccines business. Despite the overall downward trend, sales of our flea control product Advantage increased in North America and Japan while sales of the anti-infective Baytril increased in North America. The segment's operating result before exceptional items declined 16.2 percent to €0.1 billion.

### Plastics & Rubber

	<u>Six month ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u>	<u>Six month ended June 30, 2000</u>
	(euros in millions)		
Net sales (external) . . . . .	2,989	6.3	2,812
Intersegment sales . . . . .	<u>61</u>	<u>5.2</u>	<u>58</u>
Operating result before exceptional items . . . . .	316	21.1	261
Operating result . . . . .	294	19.5	246

Sales in our Plastics & Rubber segment increased 6.3 percent to €3.0 billion. Even disregarding the effect of portfolio changes, the segment showed growth in the first half, especially in the Plastics business group, where we were able to offset the effect of lower demand by increasing prices.

The operating result before exceptional items of this segment improved by 21.1 percent to €0.3 billion. Major causes of this increase were cost-cutting measures, the ability to increase prices and lower raw materials costs.

### Polyurethanes, Coatings & Colorants

	<u>Six month ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u>	<u>Six month ended June 30, 2000</u>
		(euros in millions)	
Net sales (external) . . . . .	2,682	11.5	2,406
Intersegment sales . . . . .	<u>86</u>	<u>(3.4)</u>	<u>89</u>
Operating result before exceptional items . . . . .	116	(65.5)	336
Operating result . . . . .	98	(70.1)	328

The Polyurethanes, Coatings & Colorants sales increased 11.5 percent to €2.7 billion due to acquisitions, including the Lyondell Chemical Company's polyols business and Sybron Chemicals Inc.

The operating result before exceptional items fell 65.5 percent to €0.1 billion. Major causes of this decline were the continuing high cost of petrochemical raw materials and utilities. We also felt the impact of customers' inventory reductions and of lower production volumes in important customer industries such as the automotive, electrical and construction sectors.

The Polyurethanes business group has brought all of its European office-based sales, planning and logistics structures together in a new company known as Bayer Polyurethanes Business Service Center GmbH & Co. KG. We plan to extend this concept to other business groups and in other parts of the world, and believe it will improve the efficiency and transparency of our process chains.

### Chemicals

	<u>Six month ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u>	<u>Six month ended June 30, 2000</u>
		(euros in millions)	
Net sales (external) . . . . .	2,496	18.6	2,104
Intersegment sales . . . . .	<u>245</u>	<u>2.5</u>	<u>239</u>
Operating result before exceptional items . . . . .	293	18.1	248
Operating result . . . . .	220	(10.9)	247

Sales in the Chemicals segment increased 18.6 percent to €2.5 billion. We attributed more than half of this increase to acquisitions. Although the H.C. Starck business group continued its positive trend of recent periods in all of its regional markets, we believe that consolidation in the electronics market will cause the business group's growth to slow in the second half of 2001. The Specialty Products business group's revenue increased 22.1 percent, largely due to acquisitions. Sales at Wolff Walsrode increased 15.2 percent, more than half of which was the result of portfolio changes. The methylcellulose business performed especially well, primarily in North and Latin America, Eastern Europe and Asia.

The segment's operating result before exceptional items improved by 18.1 percent to €0.3 billion.

In this segment, too, we intend to pursue an earnings-oriented portfolio management strategy, along with cost containment programs designed to save €200 million a year. The Basic and Fine Chemicals business group, for example, has embarked on a major efficiency improvement project for its manufacturing operations.

## LIQUIDITY AND CAPITAL RESOURCES, FIRST HALF YEAR 2001 AND 2000

### Cash flows

Cash and cash equivalents increased by €0.1 billion during the first half of 2001. The €0.7 billion and €0.1 billion net cash outflows for investing and financing activities, respectively, were offset by the net cash inflow of €0.8 billion from operating activities.

The following table summarizes our cash flows for the six months ended June 30, 2001 and 2000:

	<u>Six months ended June 30, 2001</u>	<u>Change from Previous Half-Year (%)</u>	<u>Six months ended June 30, 2000</u>
		(euros in millions)	
Gross operating cash flow .....	1,836	(15.4)	2,169
<i>Thereof discontinuing operations</i> .....	16	(83.3)	96
Changes in working capital .....	(1,005)	(23.0)	(817)
Net cash provided by operating activities .....	831	(38.5)	1,352
<i>Thereof discontinuing operations</i> .....	9	(85.2)	61
Net cash provided by (used in) investing activities ..	(666)	80.3	(3,377)
<i>Thereof discontinuing operations</i> .....	(14)	81.1	(74)
Net cash provided by (used in) financing activities ..	(71)	—	60
<i>Thereof discontinuing operations</i> .....	(41)	—	(11)
Change in cash and cash equivalents .....	94		(1,965)
Cash and cash equivalents at beginning of period ...	491	(82.5)	2,812
Change in scope of consolidation .....	21	(25.0)	28
Exchange rate movements .....	2	(33.3)	3
Cash and cash equivalents at June 30, .....	608	(30.8)	878
Marketable securities and other instruments .....	58	(72.8)	213
Liquid assets as per balance sheets .....	666	(39.0)	1,091

### *Cash from Operating Activities*

Cash from operating activities was €1.8 billion and gross cash decreased 15.4 percent, mainly due to lower operating results. Net operating cash flow declined by €0.5 billion, mainly because of an increase in inventories and a substantial drop in trade accounts payable.

### *Investing activities*

The net cash outflow for investing activities amounted to €0.7 billion, mainly because of disbursements of €1.6 billion for property, plant and equipment and acquisitions, partly offset by receipts totaling €0.6 billion from the sale of property, plant and equipment, as well as from investments.

### *Financing activities*

Financing activities led to a net cash outflow of €0.1 billion, with dividend and interest payments amounting to €1.0 billion and €0.2 billion, respectively, and net borrowings to €1.1 billion.

### Capital expenditures, structural changes

In the first half of 2001 we spent a total of €1.1 billion for intangible assets, property, plant and equipment, with Europe accounting for €0.7 billion. The largest increase in our capital spending was in the Asia-Pacific region, where investment more than doubled to €144 million.

We spun off a number of our business units into legally separate subsidiary companies effective July 1, 2001. We established a new company, Chemion Logistik GmbH, to take responsibility for the storage, transport and handling of chemicals and related products and to perform logistics functions for other companies. We also set up a new online personnel services company, Job@ctive, to expand e-commerce activities in the human resources field. In addition, we transferred our travel management and media services to separate legal entities.

By the end of 2002, we plan to merge our European accounting functions into two newly formed shared services centers in Leverkusen and Barcelona. Our goal is to enhance the efficiency of accounting procedures for our business groups and European subsidiaries.

## Employees

On June 30, 2001 the Bayer Group had 117,300 employees in its continuing operations, which was 700 fewer than at the start of the year. Headcount diminished by 1,600 in Europe but increased by 500 in North America and by 400 in Asia/Pacific; the number of employees in the Latin America/Africa/Middle East region was unchanged. Compared with the first half of 2000, personnel expenses increased by €300 million, of which €70 million resulted from currency translation effects.

## RECENT DEVELOPMENTS AND TREND INFORMATION

The world economy continued to slow in the third quarter, with Japan and the United States in recession. In Germany the economy is stagnating. The expansion in the emerging Asian economies and in Latin America has become greatly subdued. On top of this, the terrorist attacks in the U.S. have discouraged consumer spending and led to a further drop in demand from major customer industries.

Bayer's sales from continuing operations declined by 6 percent in the third quarter to €6.9 billion due to the weakness of the economy. In addition, the withdrawal of the cholesterol-lowering drug Lipobay®/Baycol® caused a €0.4 billion loss of revenue compared to budget. Sales for the first nine months of 2001 rose 3 percent to €22.5 billion.

	<u>First quarter</u>		<u>Second quarter</u>		<u>Third quarter</u>		<u>Fourth quarter</u>
	<u>2001</u>	<u>2000</u>	<u>2001</u>	<u>2000</u>	<u>2001</u>	<u>2000</u>	
	(euros in millions; unaudited)						
<b>Sales from continuing operations:</b>							
Domestic sales . . . . .	2,335	2,119	2,235	2,089	1,905	2,109	2,124
Foreign sales . . . . .	5,327	4,843	5,721	5,448	4,963	5,193	5,555
<b>Operating result from continuing operations before</b>							
<b>exceptional items . . . . .</b>	936	1,005	555	938	66	711	627

	<u>Third quarter 2001</u>		<u>First three quarters 2001</u>	
	(percent; unaudited)			
<b>Change in sales:</b>				
Reported . . . . .			-9.8	-0.1
Continuing operations . . . . .			-5.9	3.1
Volumes . . . . .			-4.0	-3.0
Prices . . . . .			-3.0	2.0
Exchange rates . . . . .			-1.0	1.0
Portfolio changes . . . . .			2.0	3.0

The operating result before exceptional items fell in the third quarter from €711 million to €66 million, and in the first nine months from €2.7 billion to €1.6 billion. Major reasons for this, apart from cyclical factors, were the withdrawal of Lipobay®/Baycol®, the production shortfall for biological products and high expenditures to reengineer our business processes. Disregarding these one-time effects, the operating result was down 45 percent in the third quarter and 20 percent in the first three quarters due to the general economic slowdown. However, we

achieved an initial €0.8 billion improvement in working capital performance, boosting the net operating cash flow for the third quarter by 30 percent year-on-year.

The company is in a phase of comprehensive restructuring in terms both of corporate organization and of business processes and the related cost situation. On top of the €322 million already spent in the first nine months — including €103 million in the third quarter — for business process reengineering, we spent €231 million — including €79 million in the third quarter — for structural enhancements such as site consolidation and improvements in operating efficiency. We expect these cost-saving measures to contribute significantly to earnings over the near to medium term.

### Business trend by segment

Our seven business segments — Pharmaceuticals; Consumer Care & Diagnostics; Crop Protection; Animal Health; Plastics & Rubber; Polyurethanes, Coatings & Colorants; and Chemicals — had combined external sales of €21.9 billion in the first three quarters of 2001, achieving an operating result of €1.8 billion before exceptionals and a gross cash flow of €2.5 billion. Plastics & Rubber was the largest contributor to sales, earnings and cash flow, while Animal Health posted the highest return on sales.

#### First three quarters 2001

	<u>Pharmaceuticals</u>	<u>Consumer Care &amp; Diagnostics</u>	<u>Crop Protection</u>	<u>Animal Health</u>	<u>Plastics &amp; Rubber</u>	<u>Polyurethanes, Coatings &amp; Colorants</u>	<u>Chemicals</u>
	(euros in millions before reconciliation; unaudited)						
<b>Performance by business segment:</b>							
Sales . . . . .	4,075	3,021	2,135	744	4,332	3,989	3,579
Operating result before exceptional items . . . . .	215	254	359	141	360	153	320
Gross cash flow . . . . .	58	399	408	126	573	438	480

### Pharmaceuticals

	<u>Third quarter</u>		<u>First three quarters</u>		<u>Full year</u>
	<u>2001</u>	<u>2000</u>	<u>2001</u>	<u>2000</u>	<u>2000</u>
	(euros in millions) (unaudited)				
Sales . . . . .	1,143	1,527	4,075	4,388	6,140
Operating result before exceptional items . . . . .	(100)	254	215	850	1,165
Return on sales before exceptional items . . . . .	(8.7%)	16.6%	5.3%	19.4%	19.0%
Gross cash flow . . . . .	(194)	244	58	769	1,048

Business in the Pharmaceuticals segment declined by 25 percent in the third quarter to €1.1 billion, and by 7 percent in the first nine months to €4.1 billion, mainly due to the withdrawal of Lipobay®/Baycol® and the production shortfalls for Kogenate®. More intensive marketing of Ciprobay®/Cipro® brought further significant sales growth for this anti-infective drug. In addition, it has been in particularly high demand in recent weeks on account of its indication for the treatment of anthrax; this will be reflected mainly in fourth-quarter sales.

The Pharmaceuticals segment's operating result fell in the third quarter to a loss of €100 million and in the first three quarters to a profit of €215 million, including the effects of the Lipobay®/Baycol® product withdrawal and the production problems for biologicals, which together diminished earnings from January through September by €0.5 billion and third-quarter income alone by €0.4 billion. Before these adverse effects, the operating result for both the first nine months and the third quarter were down by 18 percent.

We have filed for approval of the new drug vardenafil in the United States and Mexico for the treatment of erectile dysfunction. Market introduction is expected in those countries in the second half of 2002 and in Europe

shortly thereafter. In late 2001, we entered into a co-promotion agreement with GlaxoSmithKline for vardenafil. Our successful research alliance with Millennium Pharmaceuticals of Cambridge, Massachusetts, is being expanded to include the identification of innovative drugs to treat thrombosis, urinary incontinence and benign prostatic hypertrophy.

### Consumer Care & Diagnostics

	<u>Third quarter</u>		<u>First three quarters</u>		<u>Full year</u>
	<u>2001</u>	<u>2000</u>	<u>2001</u>	<u>2000</u>	<u>2000</u>
	(euros in millions) (unaudited)				
Sales . . . . .	1,024	991	3,021	2,877	3,888
Operating result before exceptional items . . . . .	124	80	254	210	311
Return on sales before exceptional items . . . . .	12.1%	8.1%	8.4%	7.3%	8.0%
Gross cash flow . . . . .	174	107	399	276	371

Consumer Care & Diagnostics' revenue advanced by 3 percent in the third quarter and by 5 percent in the first three quarters. Growth was driven by markedly higher sales in North America, where the cold remedies Alka-Seltzer Plus® and Aleve Cold® posted large increases. Nucleic acid diagnostics also contributed significantly to growth. The operating result before exceptional items increased by 55% in the third quarter and by 21% in the first three quarters. This increase results from good performance in Diagnostics, where we realized synergies from the integration of Chiron together with normal on-going business improvements.

### Crop Protection

	<u>Third quarter</u>		<u>First three quarters</u>		<u>Full year</u>
	<u>2001</u>	<u>2000</u>	<u>2001</u>	<u>2000</u>	<u>2000</u>
	(euros in millions) (unaudited)				
Sales . . . . .	526	463	2,135	2,042	2,456
Operating result before exceptional items . . . . .	(11)	35	359	423	401
Return on sales before exceptional items . . . . .	(2.1%)	7.6%	16.8%	20.7%	16.3%
Gross cash flow . . . . .	63	87	408	376	397

The world market for agricultural products remains characterized by low prices and fierce competition. Crop Protection boosted revenues in the third quarter by 14 percent, mainly due to higher sales of herbicides in the United States, insecticides in India and Brazil, and fungicides in Argentina. The 5 percent growth in business in the nine-month period was due largely to the acquisitions of the Flint® product line and the corn herbicide Mikado®.

The operating result of the Crop Protection segment fell to €11 million loss in the third quarter and to €359 million profit for the first three quarters, mainly due to the amortization of intangible assets acquired with Flint® and Mikado®.

On January 11, 2002, we agreed to settle various intellectual property proceedings we had brought against Syngenta AG. These disputes centered on our intellectual property in neonicotinoid chemical products (for example, our imidacloprid-based insecticides). Under this agreement, Syngenta will pay us \$120 million in exchange for access to crop protection and related markets worldwide.

## Animal Health

	Third quarter		First three quarters		Full year
	2001	2000	2001	2000	2000
	(euros in millions) (unaudited)				
Sales . . . . .	261	259	744	773	999
Operating result before exceptional items . . . . .	58	51	141	150	157
Return on sales before exceptional items . . . . .	22.2%	19.7%	19.0%	19.4%	15.7%
Gross cash flow . . . . .	53	62	126	143	160

Sales in the Animal Health segment advanced by 1 percent in the third quarter to €0.3 billion and fell by 4 percent in the first nine months to €0.7 billion. The divestiture of the U.S. livestock vaccines business had a negative effect of 1 and 4 percentage points, respectively. The parasiticide Advantage® again showed encouraging growth in the United States and Japan.

## Plastics & Rubber

	Third quarter		First three quarters		Full year
	2001	2000	2001	2000	2000
	(euros in millions) (unaudited)				
Sales . . . . .	1,343	1,476	4,332	4,288	5,816
Operating result before exceptional items . . . . .	44	148	360	409	560
Return on sales before exceptional items . . . . .	3.3%	10.0%	8.3%	9.5%	9.6%
Gross cash flow . . . . .	144	209	573	578	802

Our Plastics & Rubber segment has been particularly hard hit by the weakness of the global economy, with all major customer industries cutting back production and reducing inventories. Business was down 9 percent in the third quarter to €1.3 billion, while revenues for the first nine months were up 1 percent to €4.3 billion. Plastics' sales decreased by 10 percent in the third quarter, mainly because of sharply lower volumes and mounting pressure on prices in Europe and North America. Sales of this business group in the first nine months were up by 2 percent, with growth driven by the expansion of the polycarbonate sheet business. Sales of the Rubber business group in the third quarter receded 7 percent, but in the nine-month period nearly matched the previous year. The business trend in North America and Asia was especially disappointing. The simultaneous decline in volumes and selling prices diminished third-quarter and first-three-quarters operating profit in the Plastics & Rubber segment to €44 million and €360 million, respectively, while the gross cash flow dipped to €0.1 billion and €0.6 billion, respectively.

The Plastics business group has set up a joint venture with Shanghai Chlor Alkali Chemicals Co. Ltd. to build a new production facility at Caojing, China. Our planned future output at this location will include Makrolon® polycarbonate (PC), its precursor bisphenol A, and Bayblend® PC/acrylonitrile-butadiene-styrene (ABS) blend, all destined for the Asian market. We expect capital expenditures at the site to total approximately €500 million.

## Polyurethanes, Coatings & Colorants

	Third quarter		First three quarters		Full year
	2001	2000	2001	2000	2000
	(euros in millions) (unaudited)				
Sales . . . . .	1,307	1,332	3,989	3,738	5,076
Operating result before exceptional items . . . . .	37	105	153	441	518
Return on sales before exceptional items . . . . .	2.8%	7.9%	3.8%	11.8%	10.2%
Gross cash flow . . . . .	90	163	438	584	794

Sales of our Polyurethanes business group decreased by 2 percent in the third quarter due to the especially disappointing business trends in North America and Asia. The 7 percent increase for the first three quarters stemmed mainly from the acquisition of the polyols business of Lyondell Chemical Company. Portfolio changes had positive effects of 2 and 5 percent, respectively. As a result of recent acquisitions, the Coatings & Colorants business group posted 3 percent higher revenues in the third quarter and a 6 percent improvement for the nine months to September. Sales in North America were below expectations, as were those in Europe during the third quarter.

The operating result in the Polyurethanes, Coatings & Colorants segment dropped to €37 million in the third quarter and to €153 million in the first three quarters, due to the continuing high expenses for raw materials and energy.

## Chemicals

	<u>Third quarter</u>		<u>First three quarters</u>		<u>Full year</u>
	<u>2001</u>	<u>2000</u>	<u>2001</u>	<u>2000</u>	<u>2000</u>
	(euros in millions) (unaudited)				
Sales .....	1,083	1,056	3,579	3,160	4,275
Operating result before exceptional items .....	27	104	320	352	442
Return on sales before exceptional items .....	2.5%	9.8%	8.9%	11.1%	10.3%
Gross cash flow .....	195	139	480	440	600

Sales in the Chemicals segment rose by 3 percent in the third quarter to €1.1 billion, and by 13 percent in the nine-month period to €3.6 billion, with portfolio changes accounting for 6 and 9 percentage points, respectively. Business in Basic and Fine Chemicals declined by 2 percent in the third quarter, but increased by the same percentage in the first nine months. Divestitures had a 5- and a 4-point negative effect, respectively. Higher sales in Germany only partly offset the slump in business in North America and Japan. The Specialty Products business group saw sales grow by 10 percent in the third quarter and by 18 percent in the first three quarters due to acquisitions. As in the first half of the year, the business units with the strongest growth were Textile Processing Chemicals and Special Fields, and Ion Exchange Resins and Water Chemicals. Wolff Walsrode lifted sales in the first nine months by 8 percent to €0.3 billion, helped especially by continuing high growth rates for methylcellulose in the United States, Latin America and eastern Europe. Sales of Haarmann & Reimer dipped by 1 percent in the third quarter but rose by 2 percent in the nine-month period. The business group registered above-average growth in North and South America. Its strong focus on key accounts began to bear fruit, especially in the Flavors Business Unit. H.C. Starck was impacted in the third quarter by substantial consolidation in the electronics industry but reported 6 percent higher revenues due to acquisitions. The significant sales gains in the first half helped to produce a 42 percent increase for the first nine months, with portfolio changes accounting for 24 percentage points.

The operating result in the Chemicals segment dropped to €27 million in the third quarter and to €320 million in the first three quarters, marred by substantial write-downs of tantalum inventories. The gross cash flow improved to €195 million and €480 million, respectively.

## Business trend by region

	<u>First three quarters 2001</u>			
	<u>Europe</u>	<u>N. America</u>	<u>Asia/Pacific</u>	<u>Latin America/ Africa/ Middle East</u>
	(euros in millions before reconciliation; unaudited)			
<b>Performance by region (by point of origin)</b>				
Sales .....	10,311	7,397	2,965	1,813
Operating result before exceptional items .....	1,441	(30)	228	200
Gross cash flow .....	1,704	416	241	201

Sales of our companies in Europe declined in the third quarter by 7 percent to €3.0 billion, and advanced in the first nine months by 3 percent to €10.3 billion. The operating result and the gross cash flow declined in the third quarter and in the first three quarters as a whole. The return on sales, however, remained above the Group average. In North America, too, sales for the first nine months moved higher due to acquisitions, but were down in the third quarter. The operating result and gross cash flow also declined. The picture was similar in Asia/Pacific, though here the sales figure in euros was affected by exchange rates. In our Latin America/Africa/Middle East region, there was an encouraging increase in the operating result and the gross cash flow.

### Liquidity and capital resources

The consolidated financial statements for the first three quarters of 2001 have been prepared as for the year 2000 according to the rules issued by the International Accounting Standards Board, London. Reference should be made as appropriate to the notes to the 2000 statements. The only change arises from the application of IAS 39 (Financial Instruments: Recognition and Measurement) to the accounting treatment of primary and derivative financial instruments; this is explained in the section on asset and capital structure.

The net operating cash flow declined in the first three quarters by 11 percent to €2.0 billion. In the third quarter it grew by 30 percent to €1.2 billion due to a €0.8 billion improvement in working capital performance compared with the third quarter of 2000. We anticipate a further improvement here in the fourth quarter.

In the first nine months, the net cash outflow for investing activities amounted to €1.2 billion, with net disbursements for property, plant and equipment totaling €1.5 billion and the cash inflow from investments amounting to €0.3 billion.

Financing activities led to a net cash outflow of just €10 million, with dividends and interest payments totaling €1.3 billion almost entirely offset by net borrowings in the same amount.

With net cash of €2.0 billion provided by operating activities and net cash of €1.2 billion used in investing and financing activities, cash and cash equivalents had increased as of September 30, 2001 by €0.8 billion to €1.3 billion.

### Summary cash flow statements

	Third quarter		First three quarters	
	2001	2000	2001	2000
	(euros in millions; unaudited)			
Gross operating cash flow . . . . .	440	984	2,276	3,153
Changes in working capital . . . . .	766	(56)	(239)	(873)
Net cash provided by operating activities . . . . .	1,206	928	2,037	2,280
<i>Of which: discontinuing operations</i> . . . . .	4	68	13	129
Net cash used in investing activities . . . . .	(558)	(441)	(1,224)	(3,818)
<i>Of which: discontinuing operations</i> . . . . .	(1)	(6)	(15)	(80)
Net cash provided by (used in) financing activities . . . . .	61	(401)	(10)	(341)
<i>Of which: discontinuing operations</i> . . . . .	-	(15)	(41)	(26)
Change in cash and cash equivalents . . . . .	709	86	803	(1,879)
Cash and cash equivalents at beginning of period . . . . .	608	878	491	2,812
Exchange rate movements and changes in companies consolidated . . . . .	10	(24)	33	7
Cash and cash equivalents at end of third quarter . . . . .	1,327	940	1,327	940

## Earnings performance

	Third quarter		First three quarters		Full year
	2001	2000	2001	2000	2000
	(euros in millions) (unaudited)				
Operating result . . . . .	(316)	724	1,355	2,718	3,287
<i>Of which: discontinued operations</i> . . . . .	(9)	38	306	111	155
Non-operating result . . . . .	(187)	48	(417)	(170)	(297)
Income before income taxes . . . . .	(503)	772	938	2,548	2,990
Net income . . . . .	(183)	534	823	1,567	1,816

The operating result — including discontinuing operations — for the first three quarters of 2001 fell by 50 percent to €1.4 billion. This includes the €0.3 billion gain from the sale of the interest in EC Erdölchemie. The operating result from continuing operations before exceptionals dropped by 41 percent to €1.6 billion.

The non-operating result decreased by €0.2 billion to minus €0.4 billion, mainly because the previous year's figure included €0.2 billion in gains from the sale of investments in affiliated companies. Income tax expense declined by €0.8 billion compared with the same period last year, to €0.1 billion, bringing the effective tax rate down 26 points to 12 percent. Disregarding exceptional factors, the largest of which was the tax-free income from the sale of the interest in EC Erdölchemie, the tax rate was 37 percent. Net income declined by 47 percent to €0.8 billion.

## Asset and capital structure

	September 30,		December 31,
	2001	2000	2000
	(euros in millions) (unaudited)		
Noncurrent assets . . . . .	20,794	19,176	20,344
Current assets . . . . .	16,542	16,227	16,107
Stockholders' equity . . . . .	16,305	16,261	16,140
Minority stockholders' interest . . . . .	102	210	237
Liabilities . . . . .	20,929	18,932	20,074
Total assets . . . . .	37,336	35,403	36,451

Total assets increased during the first nine months by €0.9 billion, or 2 percent, to €37.3 billion.

Noncurrent assets grew by €0.5 billion. The major part of the increase related to investments and resulted from the revaluation of financial instruments according to IAS 39. These were carried at cost until December 31, 2000 and at fair value thereafter, leading to a €0.3 billion write-up as of September 30, 2001, which is not recognized in income. Other increases in investments, totaling €0.2 billion, resulted from the DyStar group's switch to at-equity status and the purchase of an equity interest in CuraGen Corporation. Current assets (including deferred taxes) grew by 3 percent compared with the end of 2000. While liquid assets increased by €0.7 billion, the total of inventories and receivables declined by €0.4 billion.

Stockholders' equity rose by €0.2 billion to €16.3 billion. Income after taxes, translation differences and the valuation of financial instruments according to IAS 39 added a total of €1.2 billion, while the dividend payment for 2000 diminished equity by €1.0 billion.

Liabilities (excluding provisions) grew by €1.0 billion, or 9 percent, the major factor here being a €1.3 billion increase in financial obligations that was mainly due to the utilization of the commercial paper program. Trade accounts payable declined by €0.4 billion. The net debt of €6.6 billion on September 30, 2001 was €0.6 billion greater than at the end of 2000 but €1.0 billion lower than at the beginning of the third quarter.

## **Capital expenditures**

In the first nine months we spent €1.8 billion for intangible assets, property, plant and equipment, in line with our stated intention to reduce capital expenditures to the level of depreciation. Europe accounted for €1.1 billion, of which 83 percent was spent at our German sites. Capital spending in the Asia/Pacific region was up 77 percent to €0.2 billion, while in North America it was reduced by 38 percent to €0.4 billion.

We had budgeted for total capital expenditures of €3.1 billion in 2001, but the actual figure is now likely to be considerably lower.

## **Employees**

On September 30, 2001 the Bayer Group had 117,100 employees in its continuing operations, which was 900 fewer than at the start of the year. Headcount was reduced by 1,100 in Europe, 200 in the Latin America/Africa/Middle East region and 400 in Asia/Pacific. The number of employees in North America was unchanged. Compared with the first three quarters of 2000, personnel expenses increased by €355 million, of which €67 million resulted from currency translations.

## **Outlook**

Sales and earnings in the Pharmaceuticals segment will continue to be hampered by the worldwide withdrawal of Lipobay®/Baycol® and the production problems for Kogenate®, which together are expected to negatively impact Pharmaceuticals' operating result for the full year 2001 by approximately €1.4 billion, as compared to our 2001 budget for the Pharmaceuticals segment.

We expect that Crop Protection will top the previous year's sales, thanks mainly to the new product lines Flint® and Mikado®.

The markets served by our Plastics & Rubber; Polyurethanes, Coatings & Colorants and Chemicals segments are unlikely to see a cyclical recovery in the fourth quarter of 2001. We will restructure our chemicals businesses to focus more strongly on specialties.

We expect our operating results in the fourth quarter of 2001 to be affected by the global economic slowdown and the negative factors in the Pharmaceuticals segment.

## ***Aventis CropScience Acquisition***

In October 2001, we agreed to acquire Aventis CropScience from its current owners, Aventis and Schering. In November 2001, the U.S. Federal Trade Commission began an in-depth analysis of the proposed acquisition, and in December 2001, the European Commission announced that it would subject the transaction to a detailed investigation to determine whether the acquisition violates EU competition law. Approval by the applicable antitrust and competition authorities is one of the conditions to consummating the acquisition. These regulations could also condition their approval on the divestiture of individual business lines from the combined enterprise. We do not believe that these investigations will delay our expected closing by the end of the first quarter of 2002.

We believe that Bayer's Crop Protection segment and Aventis CropScience complement each other well. Our traditional strength in the Crop Protection field has been in insecticides and fungicides; we expect that Aventis CropScience will strengthen our herbicide and garden professional care product lines. The acquisition would also give us access to Aventis CropScience's biotechnology capabilities and enable us to enter the GMO market if we chose to do so, and would add significant know-how in the seed business. We expect the acquisition to improve our regional presence, balancing our traditional strength in Europe with Aventis CropScience's presence in North America and Latin America. Successful consummation of the Aventis CropScience acquisition should permit us to offer a broader range of crop protection solutions, both geographically and in terms of products.

We believe that the combination of Aventis CropScience and our existing Crop Protection business offers significant potential cost savings as compared to the costs associated with running the two businesses separately. These savings should arise from streamlining of the production, administration and marketing activities of the

two businesses, as well as from combining their research and development activities. Any estimate of potential cost savings must remain preliminary pending the outcome of antitrust and competition reviews by regulatory authorities and the closing of the acquisition. However, subject to further work by the integration teams of the two businesses, we have identified cost savings that we estimate may amount to up to approximately €500 million annually. We believe that it will take approximately five years to achieve the full potential of these savings.

Under the terms of the Aventis CropScience acquisition, Bayer will not acquire Aventis CropScience's StarLink genetic technology and will not assume liability for any claims connected with that technology.

We intend to finance the cash portion of the acquisition price of Aventis CropScience through a €6.0 billion bridge financing facility. We expect to replace this bridge facility in the first half of 2002 by issuing benchmark bonds and through the ongoing issuance of commercial paper. As a result of our expected increase in borrowings, our credit rating has been reduced. Although this reduction will result, at least temporarily, in increased borrowing costs, we do not believe that this will materially harm our business, and we will seek to restore our pre-acquisition debt ratings and financial flexibility as quickly as possible.

## Highlights

	Three-month period ended September 30,		Nine-month period ended September 30,	
	2001	2000	2001	2000
	(euros in millions, except number of employees) (unaudited)			
<b>Sales</b> .....	6,931	7,680	22,903	22,918
<i>of which: discontinuing operations</i> .....	63	378	417	1,117
<b>Sales from continuing operations</b> .....	6,868	7,302	22,486	21,801
<i>Change</i> .....	-5.9%	22.5%	3.1%	22.1%
Domestic companies .....	1,905	2,109	6,475	6,316
<i>Change</i> .....	-9.7%	16.0%	2.5%	11.8%
Foreign companies .....	4,963	5,193	16,011	15,485
<i>Change</i> .....	-4.4%	25.4%	3.4%	26.8%
<b>Operating result</b> .....	(316)	724	1,355	2,718
<i>of which: discontinuing operations</i> .....	(9)	38	306	111
<b>Operating result from continuing operations</b> .....	(307)	686	1,049	2,607
<i>Change</i> .....	—	23.4%	-59.8%	27.4%
<b>Operating result from continuing operations before exceptional items</b> .....	66	711	1,557	2,654
<i>Change</i> .....	-90.7%	11.1%	-41.3%	21.8%
<b>Return on sales before exceptional items</b> .....	1.0%	9.7%	6.9%	12.2%
<b>Net income</b> .....	(183)	534	823	1,567
<i>Change</i> .....	—	23.9%	-47.5%	-27.1%
<b>Gross cash flow</b> .....	440	984	2,276	3,153
<i>Change</i> .....	-55.3%	26.0%	-27.8%	28.4%
<b>Capital expenditures in continuing operations</b> .....	611	605	1,753	1,855
Domestic companies .....	335	237	887	753
Foreign companies .....	276	368	866	1,102
<b>Number of employees in continuing operations as of September 30</b> .....	—	—	117,100	116,500
Personnel expenses .....	1,961	1,906	5,858	5,503
<i>Change</i> .....	2.9%	7.1%	6.5%	8.3%

Summary consolidated interim financial information, first three quarters 2001 and 2000 (unaudited)

*Income statement data*

	Three-month period ended September 30,		Nine-month period ended September 30,	
	2001	2000	2001	2000
	(euros in millions, except per share data) (unaudited)			
<b>Net sales</b> .....	6,931	7,680	22,903	22,918
<i>Net sales from discontinuing operations</i> .....	(63)	(378)	(417)	(1,117)
Net sales from continuing operations .....	6,868	7,302	22,486	21,801
Cost of goods sold.....	<u>(4,240)</u>	<u>(3,913)</u>	<u>(12,704)</u>	<u>(11,466)</u>
<b>Gross Profit</b> .....	2,628	3,389	9,782	10,335
Selling expenses .....	(1,810)	(1,716)	(5,393)	(4,840)
Research and development expenses .....	(637)	(600)	(1,847)	(1,705)
General administration expenses.....	(298)	(156)	(852)	(688)
Other operating expenses — net.....	<u>(190)</u>	<u>(231)</u>	<u>(641)</u>	<u>(495)</u>
<b>Operating result from continuing operations</b> .....	(307)	686	1,049	2,607
<i>Operating result from discontinuing operations</i> .....	<u>(9)</u>	<u>38</u>	<u>306</u>	<u>111</u>
<b>Operating result</b> .....	(316)	724	1,355	2,718
<b>Non-operating result</b> .....	(187)	48	(417)	(170)
<b>Income before income taxes</b> .....	(503)	772	938	2,548
Income taxes .....	<u>321</u>	<u>(231)</u>	<u>(116)</u>	<u>(963)</u>
<b>Income after taxes</b> .....	(182)	541	822	1,585
Minority stockholders' interest .....	<u>(1)</u>	<u>(7)</u>	<u>1</u>	<u>(18)</u>
<b>Net income</b> .....	<u>(183)</u>	<u>534</u>	<u>823</u>	<u>1,567</u>
<b>Earnings per share (€)</b> .....	(0.25)	0.73	1.13	2.15

*Balance sheet data*

	<u>September 30,</u> <u>2001</u>	<u>2000</u>	<u>December 31,</u> <u>2000</u>
	(euros in millions)		
	(unaudited)		
<b>Assets</b>			
<b>Non-current assets</b> .....	20,794	19,176	20,344
Inventories .....	6,098	5,957	6,095
Receivables .....	8,573	8,662	8,895
Liquid assets .....	<u>1,371</u>	<u>1,178</u>	<u>704</u>
<b>Current assets</b> .....	16,042	15,797	15,694
<b>Deferred taxes</b> .....	<u>500</u>	<u>430</u>	<u>413</u>
<b>Total assets</b> .....	<u>37,336</u>	<u>35,403</u>	<u>36,451</u>
<i>Of which: discontinuing operations</i> .....	229	1,114	1,157
<b>Stockholders' equity and liabilities</b>			
Capital stock and reserves .....	4,812	4,812	4,812
Retained earnings .....	10,137	9,018	9,047
Net income .....	823	1,567	1,816
Translation differences .....	<u>533</u>	<u>864</u>	<u>465</u>
<b>Stockholders' equity</b> .....	<u>16,305</u>	<u>16,261</u>	<u>16,140</u>
<b>Minority stockholders' interest</b> .....	<u>102</u>	<u>210</u>	<u>237</u>
Long-term liabilities .....	8,602	9,043	8,461
Short-term liabilities .....	<u>11,060</u>	<u>8,568</u>	<u>10,018</u>
<b>Liabilities</b> .....	<u>19,662</u>	<u>17,611</u>	<u>18,479</u>
<i>Of which: discontinuing operations</i> .....	66	526	574
<b>Deferred taxes</b> .....	<u>1,267</u>	<u>1,321</u>	<u>1,595</u>
<b>Total liabilities and stockholders' equity</b> .....	<u>37,336</u>	<u>35,403</u>	<u>36,451</u>

*Summary changes in stockholders' equity data*

	<u>Capital stock and reserves</u>	<u>Retained earnings</u>	<u>Net income</u>	<u>Translation differences</u>	<u>Total</u>
	(euros in millions)				
	(unaudited)				
<b>December 31, 1999</b> .....	<u>4,812</u>	<u>7,965</u>	<u>2,002</u>	<u>227</u>	<u>15,006</u>
Dividend payment .....			(949)		(949)
Allocation to retained earnings .....		1,053	(1,053)		0
Exchange differences .....				637	637
Income after taxes .....			<u>1,567</u>		<u>1,567</u>
<b>September 30, 2000</b> .....	<u>4,812</u>	<u>9,018</u>	<u>1,567</u>	<u>864</u>	<u>16,261</u>
<b>December 31, 2000</b> .....	<u>4,812</u>	<u>9,047</u>	<u>1,816</u>	<u>465</u>	<u>16,140</u>
Dividend payment .....			(1,022)		(1,022)
Allocation to retained earnings .....		794	(794)		0
Exchange differences .....				68	68
Other changes in stockholders' equity .....		296			296
Income after taxes .....			823		823
<b>September 30, 2001</b> .....	<u>4,812</u>	<u>10,137</u>	<u>823</u>	<u>533</u>	<u>16,305</u>

## Sales and operating results by business segment and region

### Business segment data — 3rd quarter

3rd Quarter	Pharma- ceuticals		Consumer Care & Diagnostics		Crop Protection		Animal Health		Plastics & Rubber		Polyurethanes, Coatings & Colorants		Chemicals	
	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000
(euros in millions; unaudited)														
Net sales (external) .....	1,143	1,527	1,024	991	526	463	261	259	1,343	1,476	1,307	1,332	1,083	1,056
Change in € .....	-25.1%	22.3%	3.3%	17.6%	13.6%	-0.9%	0.8%	8.8%	-9.0%	28.7%	-1.9%	35.2%	2.6%	18.7%
Change in local currencies .....	-23.3%	10.3%	3.5%	5.7%	15.1%	-11.3%	1.4%	-3.1%	-9.2%	21.3%	-1.6%	26.9%	3.6%	11.8%
Intersegment sales .....	15	10	1	1	19	20	0	1	29	30	34	42	103	115
<b>Operating result before</b>														
exceptional items .....	(100)	254	124	80	(11)	35	58	51	44	148	37	105	27	104
Change .....	—	-6.3%	55.0%	50.9%	—	-28.6%	13.7%	21.4%	-70.3%	60.9%	-64.8%	-35.2%	-74.0%	25.3%
<b>Return on sales before</b>														
exceptional items .....	-8.7%	16.6%	12.1%	8.1%	-2.1%	7.6%	22.2%	19.7%	3.3%	10.0%	2.8%	7.9%	2.5%	9.8%
Exceptional items .....	(301)	(4)	(6)	(6)	—	6	—	25	(22)	(14)	(41)	(27)	(2)	(5)
Operating result .....	(401)	250	118	74	(11)	41	58	76	22	134	(4)	78	25	99
Gross cash flow .....	(194)	244	174	107	63	87	53	62	144	209	90	163	195	139

	Reconciliation		Continuing Operations		Discontinuing Operations		Bayer Group	
Net sales (external) .....	181	198	6,868	7,302	63	378	6,931	7,680
Change in € .....			-5.9%	22.5%			-9.8%	22.4%
Change in local currencies .....			-5.2%	13.3%			-9.2%	13.6%
Intersegment sales .....	(201)	(219)	—	—	—	—	—	—
Operating result before exceptional items .....	(113)	(66)	66	711	(7)	39	59	750
Change .....			-90.7%	11.1%			-92.1%	5.5%
Return on sales before exceptional items .....			1.0%	9.7%			0.9%	9.8%
Exceptional items .....	(1)	0	(373)	(25)	(2)	(1)	(375)	(26)
Operating result .....	(114)	(66)	(307)	686	(9)	38	(316)	724
Gross cash flow .....	(84)	(82)	441	929	(1)	55	440	984

### Business segment data — First three quarters

Sept. 30	Pharma- ceuticals		Consumer Care & Diagnostics		Crop Protection		Animal Health		Plastics & Rubber		Polyurethanes, Coatings & Colorants		Chemicals	
	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000
(euros in millions; unaudited)														
Net sales (external) .....	4,075	4,388	3,021	2,877	2,135	2,042	744	773	4,332	4,288	3,989	3,738	3,579	3,160
Change in € .....	-7.1%	23.1%	5.0%	17.0%	4.6%	15.4%	-3.8%	14.2%	1.0%	28.5%	6.7%	28.7%	13.3%	17.9%
Change in local currencies .....	-7.8%	11.8%	3.6%	6.4%	4.2%	6.1%	-4.5%	3.5%	-0.5%	22.1%	5.5%	21.6%	12.7%	11.6%
Intersegment sales .....	33	30	16	1	96	76	5	6	90	88	120	131	348	354
<b>Operating result before</b>														
exceptional items .....	215	850	254	210	359	423	141	150	360	409	153	441	320	352
Change .....	-74.7%	36.1%	21.0%	59.1%	-15.1%	4.3%	-0.6%	50.1%	-12.0%	26.2%	-65.3%	-16.0%	-9.1%	3.2%
<b>Return on sales before</b>														
exceptional items .....	5.3%	19.4%	8.4%	7.3%	16.8%	20.7%	19.0%	19.4%	8.3%	9.5%	3.8%	11.8%	8.9%	11.1%
Exceptional items .....	(293)	10	(18)	(46)	0	0	0	25	(44)	(29)	(59)	(35)	(75)	(6)
Operating result .....	(78)	860	236	164	359	423	141	175	316	380	94	406	245	346
Gross cash flow .....	58	769	399	276	408	376	126	143	573	578	438	584	480	440

	Reconciliation		Continuing Operations		Discontinuing Operations		Bayer Group	
Net sales (external)	611	535	22,486	21,801	417	1,117	22,903	22,918
Change in €	—	—	3.1%	22.1%	—	—	-0.1%	11.8%
Change in local currencies	—	—	2.1%	12.9%	—	—	-1.1%	3.9%
Intersegment sales	(708)	(686)	—	—	—	—	—	—
Operating result before exceptional items	(245)	(181)	1,557	2,654	7	117	1,564	2,771
Change	—	—	-41.3%	21.8%	—	—	-43.6%	-16.4%
Return on sales before exceptional items	—	—	6.9%	12.2%	—	—	6.8%	12.1%
Exceptional items	(19)	34	(508)	(47)	299	(6)	(209)	(53)
Operating result	(264)	(147)	1,049	2,607	306	111	1,355	2,718
Gross Cash flow	(221)	(164)	2,261	3,002	15	151	2,276	3,153

### Regional data — 3rd quarter

	Europe		North America		Asia/Pacific		Latin America/ Africa/Middle East	
	2001	2000	2001	2000	2001	2000	2001	2000
(euros in millions; unaudited)								
Net sales (external) by market	2,666	2,777	2,262	2,397	1,128	1,225	812	903
Change in €	-4.0%	13.0%	-5.6%	27.3%	-7.9%	33.3%	-10.1%	29.0%
Net sales (external) by point of origin	3,002	3,237	2,324	2,459	916	976	626	630
Change in €	-7.3%	14.6%	-5.5%	25.7%	-6.1%	41.7%	-0.6%	28.8%
Change in local currencies	-7.4%	14.0%	-6.5%	7.7%	1.1%	24.9%	-2.3%	13.6%
Interregional sales	762	824	458	446	54	63	28	34
Operating result before exceptional items	104	465	-2	158	12	112	75	66
Change	-77.6%	-5.7%	-101.3%	-8.1%	-89.3%	—	13.6%	112.9%
Return on sales before exceptional items	3.5%	14.4%	-0.1%	6.4%	1.3%	11.5%	12.0%	10.5%
Exceptional items	(200)	(12)	(166)	(5)	(4)	(7)	(3)	(1)
Operating result	(96)	453	(168)	153	8	105	72	65
Gross cash flow	325	483	130	385	35	103	73	63

	Reconciliation		Continuing operations		Discontinuing operations		Bayer Group	
Net sales (external) by market	—	—	6,868	7,302	63	378	6,931	7,680
Change in €	—	—	-5.9%	22.5%	—	—	-9.8%	22.4%
Net sales (external) by point of origin	—	—	6,868	7,302	63	378	6,931	7,680
Change in €	—	—	-5.9%	22.5%	—	—	-9.8%	22.4%
Change in local currencies	—	—	-5.2%	13.3%	—	—	-9.2%	13.6%
Interregional sales	(1,302)	(1,367)	—	—	—	—	—	—
Operating result before exceptional items	(123)	(90)	66	711	(7)	39	59	750
Change	—	—	-90.7%	11.1%	—	—	-92.1%	5.5%
Return on sales before exceptional items	—	—	1.0%	9.7%	—	—	0.9%	9.8%
Exceptional items	0	0	(373)	(25)	(2)	(1)	(375)	(26)
Operating result	(123)	(90)	(307)	686	(9)	38	(316)	724
Gross cash flow	(122)	(105)	441	929	(1)	55	440	984

*Regional data — First three quarters*

	Europe		North America		Asia/Pacific		Latin America/ Africa/Middle East	
	2001	2000	2001	2000	2001	2000	2001	2000
	(euros in millions; unaudited)							
Net sales (external) by market . . . . .	9,212	8,693	7,141	7,054	3,637	3,602	2,496	2,452
Change in € . . . . .	6.0%	11.1%	1.2%	29.5%	1.0%	39.1%	1.8%	22.2%
Net sales (external) by point of origin . . . . .	10,311	10,003	7,397	7,244	2,965	2,835	1,813	1,719
Change in € . . . . .	3.1%	11.6%	2.1%	30.7%	4.6%	47.0%	5.5%	20.4%
Change in local currencies . . . . .	3.0%	11.0%	-2.4%	15.4%	9.8%	28.5%	2.8%	7.5%
Interregional sales . . . . .	2,513	2,345	1,426	1,201	195	168	100	83
<b>Operating result before exceptional items . . . . .</b>	1,441	1,851	(30)	533	228	332	200	179
Change . . . . .	-22.2%	0.9%	—	43.3%	-31.3%	159.4%	11.7%	58.4%
<b>Return on sales before exceptional items . . . . .</b>	14.0%	18.5%	-0.4%	7.4%	7.7%	11.7%	11.0%	10.4%
Exceptional items . . . . .	(226)	14	(256)	(53)	(4)	(8)	(3)	0
<b>Operating result . . . . .</b>	1,215	1,865	(286)	480	224	324	197	179
<b>Gross cash flow . . . . .</b>	1,704	1,789	416	1,004	241	303	201	186

	Reconciliation		Continuing operations		Discontinuing operations		Bayer Group	
	2001	2000	2001	2000	2001	2000	2001	2000
Net sales (external) by market . . . . .	—	—	22,486	21,801	417	1,117	22,903	22,918
Change in € . . . . .	—	—	3.1%	22.1%	—	—	-0.1%	11.8%
Net sales (external) by point of origin . . . . .	—	—	22,486	21,801	417	1,117	22,903	22,918
Change in € . . . . .	—	—	3.1%	22.1%	—	—	-0.1%	11.8%
Change in local currencies . . . . .	—	—	2.1%	12.9%	—	—	-1.1%	3.9%
Interregional sales . . . . .	(4,234)	(3,797)	—	—	—	—	—	—
<b>Operating result before exceptional items . . . . .</b>	(282)	(241)	1,557	2,654	7	117	1,564	2,771
Change . . . . .	—	—	-41.3%	21.8%	—	—	-43.6%	-16.4%
<b>Return on sales before exceptional items . . . . .</b>	—	—	6.9%	12.2%	—	—	6.8%	12.1%
Exceptional items . . . . .	(19)	0	(508)	(47)	299	(6)	(209)	(53)
<b>Operating result . . . . .</b>	(301)	(241)	1,049	2,607	306	111	1,355	2,718
<b>Gross cash flow . . . . .</b>	(301)	(280)	2,261	3,002	15	151	2,276	3,153

**RESEARCH AND DEVELOPMENT**

The following table sets forth our total research and development expenditures during the last three full years.

	2000	Change from Previous Year (%)	1999	Change from Previous Year (%)	1998
Research and development expenditure:					
Amount (in millions of euros) . . . . .	2,393	6.3	2,252	10.1	2,045
As a percentage of sales . . . . .	7.7	—	8.2	—	7.3

We typically allocate the largest portion of our research and development expenses to our Health Care businesses, primarily in the Pharmaceuticals segment. In 2000, Pharmaceuticals accounted for 45.8 percent of our total research and development spending (1999: 42.3 percent; 1998: 37.5 percent).

For a more detailed discussion of our research and development activities and policies, see Item 4, *Information on the Company — Research and Development* as well as the descriptions of each business group's research and development activities in Item 4, *Information on the Company — Business Overview*. We discuss our patents and other intellectual property protection in Item 4, *Information on the Company — Intellectual Property Protection*.

## **BASIS OF PRESENTATION**

We prepared the consolidated financial statements that appear elsewhere in this registration statement in accordance with the International Accounting Standards, or IAS, issued by the International Accounting Standards Committee (IASC). See Note 44 to our consolidated financial statements for a reconciliation of the significant differences between IAS and U.S. GAAP.

### **New Accounting Standards**

#### **IAS**

The following new or revised accounting standards and interpretations will be implemented in 2001:

IAS 12 (revised 2000)	Income Taxes
IAS 19 (revised 2000)	Employee Benefits
IAS 39	Financial Instruments: Recognition and Measurement
IAS 40	Investment Property
SIC 17	Equity-Cost of an Equity Transaction
SIC 19	Reporting Currency: Measurement and Presentation

IAS 12 (revised 2000) “Income Taxes” requires that current and deferred income taxes be measured at the tax rates applicable to undistributed earnings. The income tax consequences of dividends should be recognized when the related dividend is recognized in the financial statements. We believe that this revised standard will not have a material effect on our financial statements. This standard is effective for periods beginning on or after January 1, 2001.

IAS 19 (revised 2000) “Employee Benefits” requires that plan assets should include certain assets for insurance policies that satisfy the same conditions as other plan assets, and that have economic effects similar to those other plan assets. We do not expect that this revised standard will have a material effect on our consolidated financial statements. This standard is effective for periods beginning on or after January 1, 2001.

IAS 39 “Financial Instruments: Recognition and Measurement” requires that all financial assets and financial liabilities, including derivatives, be recognized on the balance sheet. This will involve recording on the balance sheet the unrealized gains on the available-for-sale and derivative portfolios. As of the adoption of IAS 39 on January 1, 2001, the after tax amount added to stockholders’ equity was €0.9 billion. We do not expect that IAS 39 will have a material impact on our results of operations.

IAS 40 “Investment Property” prescribes the accounting treatment for investment property and related disclosure requirements. We do not believe that the adoption of IAS 40 will have a material impact on our consolidated financial statements.

SIC 17 “Equity — Cost of an Equity Transaction” requires that we account for transaction costs of an equity transaction as a deduction from equity, net of any related income tax benefit, unless the transaction fails to be completed, in which case it should be expensed. We do not believe this will have a material impact on our consolidated financial statements.

SIC 19 “Reporting Currency — Measurement and Presentation of Financial Statements under IAS 21 and IAS 29” provides additional guidance on determining the reporting currencies of foreign subsidiaries. We do not believe this will have a material impact on our consolidated financial statements.

#### **U.S. GAAP**

In December 1999, the Securities and Exchange Commission released Staff Accounting Bulletin No. 101, “Revenue Recognition in Financial Statements” (“SAB 101”). SAB 101 provides guidance on the application of U.S. generally accepted accounting principles to revenue recognition issues in financial statements. SAB 101 outlines the criteria that must be met to recognize revenue and provides guidance for disclosures related to

revenue recognition policies. Bayer's adoption of SAB 101 in calendar 2000 did not have a material effect on the Group's financial position, results of operations or cash flows.

In March 2000, the Financial Accounting Standards Board issued FASB Interpretation No. 44 ("FIN 44"), "Accounting for Certain Transactions Involving Stock Compensation — An Interpretation of Accounting Principles Board Opinion No. 25 ("APB 25")." FIN 44 clarifies the definition of an employee for purposes of applying APB 25, the criteria for determining whether a plan qualifies as a noncompensatory plan; the accounting consequences of various modifications to the terms of the previously fixed stock options or awards and the accounting for an exchange of stock compensation awards in a business combination. Bayer's adoption of FIN 44 in calendar 2000 had no effect on the Group's financial position, results of operations or cash flows.

Statement of Financial Accounting Standards ("SFAS") No. 133 "Accounting for Derivative Instruments and Hedging Activities," as amended by SFAS No. 137 and No. 138, requires all derivative instruments be recorded on the balance sheet at their fair value. Changes in the fair value of derivatives are recorded each period in current earnings or other comprehensive income. The adoption of SFAS No. 133 as of January 1, 2001 did not have a material effect on the Group's financial position, results of operations or cash flows.

In June 2001, the Financial Accounting Standards Board approved SFAS 141 "Business Combinations" and SFAS 142 "Goodwill and Other Intangible Assets". SFAS 141 requires the purchase method of accounting to be used for all business combinations initiated after June 30, 2001, establishes specific criteria for the recognition of intangible assets separately from goodwill, and requires unallocated negative goodwill to be written off immediately as an exceptional gain. Bayer will apply SFAS 141 to all business combinations for which purchase agreements are signed after June 30, 2001. SFAS 142 addresses the accounting for goodwill and identifiable intangible assets subsequent to their acquisition. Amortization of goodwill will discontinue upon adoption of SFAS 142. In addition, goodwill recorded as a result of business combinations completed during the six-month period ended December 31, 2001 will not be amortized. All goodwill and intangible assets will be tested for impairment in accordance with the provision of this statement. The Group will apply the provisions of SFAS 142 beginning January 1, 2002. Bayer has not completed its analysis of these standards and, accordingly, has not determined what effect the adoption of SFAS 141 and 142 will have on the Group's financial position, results of operations or cash flows.

In June 2001, the Financial Accounting Standards Board approved SFAS 143 "Accounting for Asset Retirement Obligations". SFAS 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset. SFAS 143 is effective for fiscal periods beginning after June 15, 2002. Early adoption is encouraged and initial application of this Statement shall be as of the beginning of an entity's fiscal year. The Group will apply SFAS 143 beginning January 1, 2003. Bayer has not completed its analysis of this standard and, accordingly, has not determined what effect the adoption of SFAS 143 will have on the Group's financial position, results of operations or cash flows.

In August 2001, the Financial Accounting Standards Board approved SFAS 144 "Accounting for the Impairment or Disposal of Long-Lived Assets". SFAS 144 retains the requirements of SFAS 121 to recognize an impairment loss only if the carrying amount of a long-lived asset is not recoverable from its undiscounted cash flows and measure an impairment loss as the difference between the carrying amount and fair value of the asset. SFAS 144 requires a probability-weighted cash flow estimation approach and establishes a "primary-asset" approach to determine the cash flow estimation period for groups of assets and liabilities. SFAS 144 is effective for fiscal years beginning after December 15, 2001, and interim periods within those fiscal years, with early application encouraged. The Group will apply SFAS 144 beginning January 1, 2002. Bayer has not completed its analysis of this standard and, accordingly, has not determined what effect the adoption of SFAS 144 will have on the Group's financial position, results of operations or cash flows.

### **Currency of Presentation**

On January 1, 1999, the euro became the common currency of the 11 member states of the European Union (including Germany) participating in the European Monetary Union. The conversion rates between the euro and the national "legacy" currencies are irrevocably fixed; the official German mark/euro rate is DM 1.95583 per

€1.00. Legacy currency banknotes and coins remain in circulation during an initial transition period. On January 1, 2002, new euro-denominated notes and coins entered circulation and the legacy currencies will be withdrawn from circulation. From July 1, 2002 euro notes and coins will become the sole legal tender in these countries.

Beginning January 1, 1999, we have presented our financial statements in euro. For financial information from earlier dates and periods, we have translated German mark values into euro at the official rate. Because we originally prepared this financial information using the German mark, you should not assume that you can accurately compare this financial information with that of other companies that have translated a non-DM European currency into euro.

## **Item 6. Directors, Senior Management and Employees**

### **Directors and Senior Management**

In accordance with the German Stock Corporation Act (*Aktiengesetz*), Bayer AG has both a Board of Management (*Vorstand*) and a Supervisory Board (*Aufsichtsrat*). The Board of Management is responsible for the management of our business; the Supervisory Board appoints and supervises the members of the Board of Management. The two boards are separate, and no individual may simultaneously be a member of both boards.

Members of both the Board of Management and the Supervisory Board owe a duty of loyalty and care to Bayer AG. In exercising their duties, the applicable standard of care is that of a diligent and prudent businessperson. Members of both boards must take into account a broad range of considerations when making decisions, including the interests of Bayer AG and its shareholders as well as of employees and creditors.

The members of the Board of Management and the Supervisory Board may be held personally liable to Bayer AG for breaches of their duties of loyalty and care. Bayer AG must bring an action for breach of duty against the Board of Management or Supervisory Board upon a resolution of the shareholders' meeting passed by a simple majority of votes cast, or upon the request of shareholders holding, as a group, at least 10 percent of the outstanding share capital. With the exception of shareholders of companies that (unlike Bayer AG) are under the control of another company, individual shareholders of German companies cannot sue directors on behalf of the company in a manner analogous to a shareholder's derivative action under U.S. law. Under German law, directors may be liable for breach of duty to shareholders (as opposed to a duty to the company itself) only where a breach of duty to the company also constitutes a breach of a statutory provision enacted specifically for the protection of shareholders. As a practical matter, shareholders are able to assert liability against directors for breaches of this sort only in unusual circumstances.

### ***Board of Management***

The Board of Management is responsible for managing the business of Bayer AG in accordance with the German Stock Corporation Act and Bayer AG's Articles of Association. It also represents Bayer AG in its dealings with third parties and in court. According to the Articles of Association the Board of Management consists of a minimum of two members. The Supervisory Board determines the number of and appoints the members of the Board of Management. Members of the Board of Management are appointed by the Supervisory Board for a maximum term of five years and are eligible for reappointment after the completion of their term in office.

Bayer AG is legally represented by two members of the Board of Management acting together, or by one member of the Board of Management together with a person possessing a special power of attorney (*Prokura*).

The Board of Management must report regularly to the Supervisory Board, particularly on proposed business policy and strategy, profitability and on the current business of Bayer AG, as well as on any exceptional matters which may arise from time to time. If not otherwise required by law, the Board of Management decides with a simple majority of the votes cast. In case of deadlock, the vote of the chairman is the relevant vote.

Under certain circumstances, such as a serious breach of duty or a vote of no confidence by the shareholders in an annual meeting, a member of the Board of Management may be removed by the Supervisory Board prior to the expiration of his term. A member of the Board of Management may not deal with, or vote on, matters relating to proposals, arrangements or contracts between him/herself and Bayer.

Committees of the Board of Management oversee various aspects of the management of Bayer as a whole, with the committee chairmen holding primary responsibility. Individual Board members serve as representatives with primary responsibility for our various business segments and as representatives for the various geographic regions in which we operate.

The following table shows the members of the Board of Management, their ages, positions and the years in which their current terms expire.

<u>Name and Age</u>	<u>Position</u>	<u>Current term expires</u>
Dr. Manfred Schneider (62) . . . . .	Chairman	2002
Dr. Attila Molnar (52) . . . . .	Director	2004
Dr. Frank Morich (47) . . . . .	Director	2005
Dr. Udo Oels (57) . . . . .	Director	2006
Werner Spinner (52) . . . . .	Director	2003
Werner Wenning (53) . . . . .	Director	2007
Dr. Gottfried Zaby (50) . . . . .	Director	2005

*Dr. Manfred Schneider* joined the Board of Management in 1987 and has served as chairman since 1992. He currently chairs the Corporate Coordination Committee and is a member of the Finance Committee. In addition to his responsibilities at Bayer AG, he is also the president of the German Chemical Industry Association and a vice-president of the Confederation of German Industry, as well as a member of the supervisory boards of Allianz AG, DaimlerChrysler AG, Metro AG, and RWE Aktiengesellschaft.

*Dr. Attila Molnar* has served on the Board of Management since 1999. Currently, he chairs the Human Resources Committee and is a member of the Technology and Environment Committee. He is the representative of the Board of Management responsible for the North America and Mexico regions. Dr. Molnar also represents the Agriculture businesses. Prior to joining the Board, Dr. Molnar was the general manager of Bayer's former Organic Chemicals business group from 1996 to 1999 and became the general manager of the Basic and Fine Chemicals business group in 1999 before joining the Board of Management later that year.

*Dr. Frank Morich* has been a member of the Board of Management since 2000. He is chairman of the Research and Development Committee and a member of the Marketing and Logistics and the Technology and Environment Committees. He represents the Health Care businesses on the Board. Dr. Morich served as head of product development for our Pharmaceuticals segment from 1995 to February 1998 and then, until he joined the Board, as head of our Consumer Care business group.

*Dr. Udo Oels* joined the Board of Management in 1996 and currently chairs the Technology and Environment Committee. He is also a member of the Research and Development and the Corporate Coordination Committees. He is the representative for the China region.

*Werner Spinner* has been a member of the Board of Management since 1998. He currently chairs the Marketing and Logistics Committee and is a member of the Finance Committee. He also represents the Polymers businesses as well as the Far East region. Prior to joining the Board, Mr. Spinner was the general manager of the Consumer Care business group from 1994 to 1998.

*Werner Wenning* has served on the Board of Management since 1997. He currently chairs the Finance Committee and is a member of the Corporate Coordination and Human Resources Committees. He represents the Central and South America, Africa and Middle East regions. From 1996 until he joined the Board in 1997, Mr. Wenning was head of Corporate Planning and Controlling. In addition to his responsibilities on the Board, he is a member of the board of directors of Agfa-Gevaert N.V. and the supervisory boards of Dresdner Bank Lateinamerika AG, Gerling-Konzern Allgemeine Versicherungs-AG and Rheinyp Rheinische Hypothekenbank AG. He is also the vice president of the Deutsches Aktieninstitut e.V. and a member of the Presidium of the Cologne Chamber of Industry and Commerce. The Supervisory Board announced in September 2001 that Mr. Wenning would be nominated to succeed Dr. Schneider as Chairman of the Board of Management from the date of our next Annual General Meeting in April 2002.

*Dr. Gottfried Zaby* joined the Board of Management in 2000. He is a member of the Marketing and Logistics, Human Resources and Research and Development Committees. He also represents the Chemicals business segment and the European region. In 1995, Dr. Zaby became head of the Production and Technology department of our Plastics business group. In July 1997 he became head of this business group, a position in which he served until joining the Board.

### ***Supervisory Board***

Under the German Stock Corporation law, the German Co-Determination Act (*Mitbestimmungsgesetz*) of 1976 and our Articles of Association, the Supervisory Board consists of 20 members. The principal function of the Supervisory Board is to appoint and supervise the Board of Management. The Supervisory Board may not make management decisions, but the Board of Management's standard operating procedures (*Geschäftsordnung*) may require the prior consent of the Supervisory Board for specified transactions, including:

- the acquisition or disposition of investments above a specified threshold;
- the acquisition, disposition or encumbrance of real property;
- the creation of new business units, or the disposition of existing units;
- the issuance of bonds, entering into of credit agreements, or grant of guaranties, sureties (*Bürgschaften*) and loans, except to subsidiaries; and
- the establishment of branch offices (*Zweigniederlassungen*).

Our shareholders elect 10 members of the Supervisory Board at the annual meeting of shareholders. Pursuant to the Co-Determination Act of 1976, our employees elect the remaining 10 members. The term of a Supervisory Board member expires at the end of the annual meeting of shareholders in which the shareholders discharge Supervisory Board members for the fourth fiscal year following the year in which the member was elected. There is no compulsory retirement age for members of the Supervisory Board.

Any member elected by the shareholders in the annual meeting of shareholders may be removed by a majority of three quarters of the votes cast by the shareholders in such meeting. Any member elected by the employees may be removed by a majority of three quarters of the votes cast by the relevant class of employees. Unless not required by law or by the Articles of Association of Bayer AG, resolutions of the Supervisory Board are passed by simple majority of the votes cast. According to the Articles of Association, in the case of a deadlock, a second vote is held and in such vote the chairman of the Supervisory Board has a second vote. In order to constitute a quorum at least half of the total members of the Supervisory Board must be present in the meeting or participate in the voting by giving a written vote.

All of the current shareholder representatives on the Supervisory Board were elected by the shareholders at the annual meeting of shareholders held on April 30, 1997.

The following table shows the current members of the Supervisory Board, their principal occupations and the year in which they were first elected or appointed. Employee representatives are identified by an asterisk.

<u>Name</u>	<u>Position</u>	<u>Principal occupation</u>	<u>First elected</u>
Hermann Josef Strenger . . . . .	Chairman	Former Chairman, Board of Management	1992
*Erhard Gipperich . . . . .	Vice Chairman	Lathe operator	1998
*Petra Brayer . . . . .	Member	Chemical laboratory assistant	1999
*Karl-Josef Ellrich . . . . .	Member	Business administrator, health insurance fund	2000
Dr. h.c. Martin Kohlhaussen . . . . .	Member	Chairman of the management board, Commerzbank AG	1992
Hilmar Kopper . . . . .	Member	Chairman of the supervisory board, Deutsche Bank AG	1988
*Petra Kronen . . . . .	Member	Chemical Laboratory Assistant	2000
Dr.-Ing. Manfred Lennings . . . . .	Member	Management consultant	1978
Dr. h.c. André Leysen . . . . .	Member	Chairman of the board of directors, Gevaert N.V.	1987
Dr. h.c. Helmut Oswald Maucher . . . . .	Member	Honorary Chairman, Nestlé S.A.	1997
*Rolf Nietzard . . . . .	Member	Chemical Laboratory Technician	1996
Dr. Heinrich von Pierer . . . . .	Member	Chairman of the management board, Siemens AG	1993
*Waltraud Schlaefke . . . . .	Member	Chemical laboratory technician	1992
*Hubertus Schmoltdt . . . . .	Member	Chairman, German Mine, Chemical and Power Workers' Union	1995
*Dieter Schulte . . . . .	Member	Chairman, German Unions Federation	1997
*Dr. Eugen Velker . . . . .	Member	Chemist	2000
Lodewijk C. van Wachem . . . . .	Member	Chairman of the supervisory board, Royal Dutch Petroleum Company	1997
*Siegfried Wendlandt . . . . .	Member	North Rhine District Secretary, German Mine, Chemical and Power Workers' Union	2001
Prof. Dr. Ernst-L. Winnacker . . . . .	Member	President, German Research Association	1997
Dr. Hermann Wunderlich . . . . .	Member	Former Vice Chairman, Board of Management	1996

### ***Supervisory Board Committees***

Currently, the Supervisory Board has the following committees:

- The committee (*Vermittlungsausschuss*) established pursuant to § 27 (3) of the Co-Determination Act, which consists of the chairman and vice chairman of the Supervisory Board as well as one shareholder representative and one employee representative. The purpose of this committee is to nominate members of the Board of Management for election by a simple majority of the votes of the Supervisory Board in the event that the Supervisory Board is unable to appoint members of the Board of Management with the votes of at least a two thirds majority of the Supervisory Board. The current members of the *Vermittlungsausschuss* are Mr. Strenger, Mr. Gipperich, Mr. Kopper and Mr. Schmoltdt.

Pursuant to § 5 (1) of the Standard Operating Procedures (*Geschäftsordnung*) of the Supervisory Board, the *Vermittlungsausschuss* also serves as the *Presidium*, i.e. a sub-body of the Supervisory Board to

which the Supervisory Board may delegate some of its functions. Among the Presidium's responsibilities in this capacity is to serve as the Supervisory Board's audit committee.

- The personnel committee (*Personalausschuss*) established pursuant to § 5 (2) of the Standard Operating Procedures of the Supervisory Board. The personnel committee consists of four members of the Supervisory Board. The chairman of the Supervisory Board acts as chairman of the personnel committee. The main responsibility of the personnel committee is the determination of the salary and further conditions of the employment of Board of Management members, the legal representation of the Company in affairs with Board of Management members pursuant to § 112 of the German Stock Corporation Act, the approval of agreements with Supervisory Board members pursuant to § 114 of the German Stock Corporation Act and the approval of loans granted to Supervisory Board and Board of Management members and other persons pursuant to § 89 and § 115 of the German Stock Corporation Act. The current members of the personnel committee are Mr. Strenger, Mr. Kohlhaussen, Mr. Nietzard and Ms. Schlaefke.
- The investment committee (*Beteiligungsausschuss*) established pursuant to § 5 (3) of the Standard Operating Procedures of the Supervisory Board. This committee consists of four members of the Supervisory Board; its primary purpose is to make recommendations to the Supervisory Board with respect to the acquisition or disposal of investments, where the Standard Operating Procedures of the Board of Management condition these transactions on the Supervisory Board's approval. The investment committee may grant preliminary approval to such transactions, thereby permitting the Board of Management to proceed with a transaction subject to final approval by the Supervisory Board. The current members are Mr. Strenger, Mr. Gipperich, Mr. Schmoldt and Mr. Wunderlich.
- The social policy committee (*sozialpolitischer Ausschuss*) established pursuant to § 5 (6) of the Standard Operating Procedures of the Supervisory Board. The social policy committee advises the Supervisory Board on developments in social policy in Germany and abroad that could be important for Bayer. The current members of the committee are Mr. Strenger, Ms. Brayer, Mr. Kohlhaussen, Ms. Kronen, Mr. Lennings, Mr. Schulte, Mr. Velker and Mr. Wunderlich.

### **Share Ownership**

Because the shares of Bayer AG are in bearer form, we cannot obtain precise information as to their holders. To the best of our knowledge, however, no member of the Supervisory Board or the Board of Management who beneficially owns shares of Bayer AG owns one percent or more of all outstanding shares.

### **Compensation**

In 2000 we paid salary and bonus compensation totalling €10,387,801 (1999: €8,219,011) to the members of our Board of Management. Of this amount, €3,729,776 represented base salary and fixed bonus and €6,658,025 represented variable bonus. The variable bonus for a given year is tied to the amount of Bayer AG's dividend for that year. Emoluments to retired members of the Board of Management and their surviving dependents amounted to €8,923,934 (1999: €7,069,509). We paid €2,078,680 (1999: €1,811,250) in compensation to the members of the Supervisory Board.

In 2000, we implemented our Stock Option Program, under which we may grant "option rights" to members of the Board of Management. The number of shares that these option rights entitle holders to receive will vary substantially depending on certain performance benchmarks; if minimum benchmarks are not reached, the holder is not entitled to exercise the option rights. See below, "— Employee Option Plans — Stock Option Program".

There were no loans to members of the Board of Management or Supervisory Board outstanding as of December 31, 2000.

We pay retired former members of the Board of Management a monthly pension equal to 80 percent of the monthly base salary received while in service. If we increase the base salary of current Board members, we adjust the pension payments to retired members accordingly.

### ***Board of Management severance plan***

Beginning in 2001, we established a severance plan for the members of Bayer AG's Board of Management. This plan provides for payments for Board members if their relationship with Bayer AG is terminated following a change of control. "Change of control", for the purposes of this plan, is defined as the acquisition by a third party of 25 percent or more of Bayer AG's outstanding shares or transactions that would have a similar effect. A Board member is generally eligible for payment under the plan if his or her relationship with Bayer AG ends within 12 months of the change of control, other than in the case of termination for cause or termination of a Board member aged 62 or more at the time of termination.

Under the plan, former Board members are entitled to receive the discounted present value of the compensation they would have received through the normal expiration date of their employment contracts. In addition, they would receive a severance payment equal to their annual compensation for a period of from two to four years. The basic amount of these severance payments is equal to two years' compensation. If the former Board member is 50 or older at the time of termination, the payment increases by one year's compensation or by two years' compensation if, in addition, the former Board member's length of service with the company was at least 30 years or his or her tenure on the Board was at least ten years. Total payments under the plan are, however, capped at an amount equal to five times the former Board member's annual compensation. In addition, the former Board member would retain full pension rights.

### ***Employee option plans***

In May 2000 we implemented a three-tier program to provide employees and management an opportunity to earn Bayer AG shares. We offer the *stock option program* for members of the Board of Management and senior executives, the *stock incentive program* for middle management and equivalent employees and the *stock participation program* for junior management and other employees. To be eligible for the stock option and stock incentive programs and for Module 1 of the stock participation program, participants must place Bayer AG shares of their own into a special deposit account. Participants do not pay an exercise price for the shares they receive under these programs. Rather, they receive the shares as bonus shares or, in the case of Module 2 of the stock participation program, have the opportunity to purchase shares at a discounted price.

#### ***Stock Option Program***

Members of the Board of Management and senior executives who wish to participate in the stock option program must place Bayer AG shares of their own in a special deposit account. We determine on an individual basis the maximum number of shares each participant may deposit; the participant receives one option right for each 20 shares deposited. These deposited shares are "locked up"; the participant may not sell them during the following three years. After the end of these three years, a two-year exercise period begins. During this period, the participant may exercise the option rights if he or she has fulfilled the performance criteria. Any unexercised option rights expire at the end of this two-year period.

To determine whether the participant is eligible to exercise option rights and, if so, the number of shares received upon exercise, we apply three criteria. Two of these measure the relative performance of the Bayer AG share; the third measures the individual contribution of the participant.

- If the Bayer AG share's total return has been at least 30 percent from the beginning of the program, each option right entitles the participant to one share for each three percentage points of total return, up to a maximum of 50 shares. This number may be modified by the application of the third, individual performance-based criterion.
- If the Bayer AG share's total return exceeds the total return of the Dow Jones Euro Stoxx 50<sup>SM</sup> performance index from the beginning of the program, each option right entitles the participant to one share for each percentage point by which the Bayer AG share has outperformed the index, up to a maximum of 50 shares. Again, this number is subject to modification by the third criterion.
- We calculate the cash value the participant has added to the business operations for which he or she is responsible. We do this by comparing the average growth in cash value for these operations with the

average growth in cash value for the Bayer Group as a whole. The result of this calculation is a factor between 0 and 2.

We multiply the number of the participant's option rights by the number of shares to which he is or she is entitled under each the first two criteria. We then multiply the result by the factor produced by the third criterion. If the participant is not entitled to any shares under the first and second criteria, or if the factor produced by the third criterion is 0, the participant receives no shares under the program.

As of December 31, 2000, participants in our stock option program have received a total of 1,678 option rights. The number of shares that these participants may receive upon exercise of their option rights would vary between a minimum of zero shares and, assuming maximum results for all participants on all three performance criteria described above, a maximum of 335,600 shares.

German law generally requires specific shareholder approval for the issuance of shares to members of a corporation's board of management. To the extent that we are unable to issue shares under the stock option program to participating members of our Board of Management at the time they are entitled to exercise their option rights, therefore, the option rights would function as share appreciation rights. Instead of shares, the participant would receive the cash value of the shares to which the option rights would otherwise entitle him or her, based on the trading price of the Bayer AG share at the time of exercise.

#### *Stock Incentive Program*

Like the stock option program, our stock incentive program for middle management requires participants to deposit Bayer AG shares in a special deposit account. Each participant may deposit Shares with a maximum aggregate value of half his or her performance-related bonus for the preceding fiscal year. The number of incentive shares the participant receives depends on the number of Bayer AG shares deposited at the launch of the program as well as on the total return of the Bayer AG share. Unlike the stock option program, the stock incentive program does not "lock up" deposited shares. Participants may sell their deposited shares during the term of the program, but any deposited shares they sell are no longer counted in calculating the number of incentive shares for subsequent distribution dates.

The stock incentive program has a ten-year term. There are three incentive share distribution dates during this period. On these dates, the participant receives incentive shares as follows:

<u>Distribution date at end of</u>	<u>Incentive shares received (per 10 deposited shares)</u>
Second year . . . . .	2
Sixth year . . . . .	4
Tenth year . . . . .	4

Participants receive incentive shares only if the total return of the Bayer AG share has outperformed the Dow Jones Euro Stoxx 50<sup>SM</sup> performance index on the relevant distribution date, as calculated from the beginning of the program.

Based on the number of Bayer AG shares that participants in the stock incentive program have deposited as of December 31, 2000, participants are eligible to receive a total of 91,740 shares on the future distribution dates, assuming satisfaction of the performance criterion on each such date and assuming that these participants do not remove any shares from deposit during the term of the program.

#### *Stock Participation Program*

Our stock participation program has two components, Module 1 and Module 2. Employees not covered by the stock option program or stock incentive program may generally participate in both Module 1 and Module 2.

The Module 1 program, like the stock incentive program, requires participants to deposit Bayer AG shares in a special account. As with the stock incentive program, participants in the stock participation program may sell

their deposited Bayer AG shares during the term of the program; any shares they sell are no longer counted in calculating the number of bonus shares on subsequent distribution dates.

At the time we launched the stock participation program, employees governed by collective bargaining agreements were permitted to deposit shares with a maximum aggregate value equal to the performance-related bonus they received in the year they entered the program. The maximum value of shares deposited by all other participants was half of their performance-related bonus. From 2001, all participants may deposit shares in a total value equal to half of the performance-related bonus for the previous year.

Module 1 has a term of ten years and entitles the participant to receive incentive shares on three distribution dates based on the number of shares he or she has deposited. Unlike the stock incentive program, Module 1 does not impose a share performance criterion. The participant receives incentive shares as follows on the distribution dates:

<u>Distribution date at end of</u>	<u>Incentive shares received (per 10 deposited shares)</u>
Second year . . . . .	1
Sixth year . . . . .	2
Tenth year . . . . .	2

Based on the number of Bayer AG shares that participants in Module 1 of the stock participation program have deposited as of December 31, 2000, participants are eligible to receive a total of 275,720 shares on the future distribution dates, assuming that these participants do not remove any shares from deposit during the term of the program.

In addition, under Module 2 each participant may purchase 10 Bayer AG shares per year at a tax-free discount of DM 30.00 (€15.33) per share under the then market price. For income tax reasons, the participants must hold these shares for a minimum period of six years after purchase. Participants may not include shares that they purchase under Module 2 among the shares they deposit under Module 1.

### **Employees**

The following tables set forth the average number of employees in continuing operations during 2000, 1999 and 1998 by area of primary activity and an approximate breakdown of employees as of December 31, 2000, 1999 and 1998 by geographical region:

<u>Employees by Activity</u>				<u>Breakdown by Region</u>			
	<u>Average for</u>				<u>As of December 31,</u>		
	<u>2000</u>	<u>1999</u>	<u>1998</u>		<u>2000</u>	<u>1999</u>	<u>1998</u>
Technology . . . . .	61,403	61,117	61,476	Europe . . . . .	68,100	68,200	69,500
Marketing . . . . .	34,355	34,474	33,142	North America . . . . .	24,800	23,700	24,500
Administration . . . . .	9,996	9,905	9,920	Asia/Pacific . . . . .	12,400	11,500	11,000
				Latin America/ Africa/Middle East..	12,000	12,000	12,700
Research . . . . .	<u>11,535</u>	<u>12,015</u>	<u>11,622</u>	Corporate . . . . .	<u>600</u>	<u>700</u>	<u>700</u>
Total . . . . .	<u>117,289</u>	<u>117,511</u>	<u>116,160</u>				

### **Labor relations**

Bayer has traditionally enjoyed an excellent relationship with its workforce. Throughout our history, there has never been an organized work stoppage at any of our German facilities. In addition, turnover is low (5.2 percent in 2000, 5.5 percent in 1999 for Bayer AG).

The union-organized workers at our German facilities belong to several unions, the most important of which is IG BCE, the German Mine, Chemical and Power Workers' Union. We do not negotiate collective bargaining agreements with these unions to cover our workers. Instead, in accordance with German practice, unions

negotiate agreements with industry-wide employers' associations, in our case the German Chemical Industry Association. Negotiations between German employers' associations and labor unions have generally been constructive and open; in recent years, unions have cooperated with industry, agreeing to concessions to improve operating efficiency.

In Germany, employers and unions generally negotiate collective bargaining agreements annually. The agreement that currently covers our workers has a term of 21 months, beginning June 2000. It grants workers a 2.2 percent pay increase on June 1, 2000 and calls for a second increase of 2.0 percent effective June 1, 2001. A German collective bargaining agreement governs the employment of all workers of the categories organized in the relevant union, whether or not the individual worker is a union member.

There are 13 pay grades, based on job description, for our employees in positions governed by collective bargaining agreements. Our management employees, who have individual employment contracts, are organized in six pay grades.

Each Bayer facility in Germany has a works council (*Betriebsrat*), elected by all non-management employees. Members serve a four-year term; the next elections are scheduled for Spring 2002. The works councils facilitate communications between us and our staff at the facility level. A joint works council (*Gesamtbetriebsrat*) serves a similar purpose at the company-wide level. The rights and responsibilities of works councils are set forth in the German Works Council Constitution Act (*Betriebsverfassungsgesetz*). Members of our works councils share responsibility with us for managing staff-related issues as well as such working conditions as:

- working hours;
- vacation guidelines;
- employee facilities (e.g., subsidized cafeterias); and
- distribution guidelines for performance-related bonuses.

A works council has no authority, however, to negotiate with an employer on wage and salary compensation or other issues covered by the collective bargaining agreements between employers' associations and labor unions. Under German labor law, employees may legally strike only in an effort to obtain more favorable terms in the collective bargaining process. Accordingly, works councils have no legal authority to call a work stoppage.

On December 12, 2000, we entered into an agreement (*Standortsicherungsvereinbarung*) with our joint works council to further job stability at several of our most important German sites. This agreement became effective on January 1, 2001. Under the agreement, the joint works council agreed to the reduction or elimination of certain social benefits that we previously provided. These included additional vacation days, additional payments and paid breaks. The council also granted us increased flexibility in setting working hours. In exchange, we agreed that we would not, except in exceptional circumstances, lay off employees at our Leverkusen, Dormagen, Uerdingen, Elberfeld and Brunsbüttel sites for operational reasons before December 31, 2004. If exceptional circumstances arise that are beyond our control and lead to employee overcapacity, we have agreed to negotiate with the joint works council to create a solution that will serve the interests of company and employees to the greatest possible extent.

### ***Employee Pension Plan***

All employees who have not reached the age of 55 before entering into employment with Bayer AG must join Bayer AG's pension fund (*Bayer-Pensionskasse*). As a member of the *Pensionskasse*, an employee makes a monthly contribution to the pension fund. These contributions are withheld from the member's salary. Bayer AG also contributes to the *Pensionskasse*. Upon retirement, the employee is entitled to receive a monthly basic pension payment (*Grundrente*) from the *Pensionskasse* if the employee was employed by Bayer AG, or was a member of the *Pensionskasse*, for at least five years. Employees whose annual salary exceeds the annual salary threshold for statutory pension insurance (*gesetzliche Rentenversicherung*) is entitled to receive an additional monthly pension payment (*Zusatzrente*). As of December 2000, this salary threshold was DM 103,200. Bayer AG finances these additional pension payments in total by pension reserves.

## **Item 7. Major Shareholders and Related Party Transactions**

### **Major Shareholders**

Under our Articles of Association, each of our ordinary shares represents one vote. Major shareholders do not have different voting rights.

Under the German Securities Trading Act (*Wertpapierhandelsgesetz*), holders of voting securities of a listed German company must notify that company of the level of their holding whenever it reaches, exceeds or falls below specified thresholds. These thresholds are 5, 10, 25, 50 and 75 percent of the company's outstanding voting securities. One shareholder, Allianz Versicherungs-Aktiengesellschaft, has informed us that it holds 5.7 percent of Bayer AG's outstanding shares. No other shareholder has notified us that it has crossed any of the Securities Trading Acts thresholds.

Because the shares of Bayer AG are in bearer form, we cannot obtain precise information as to the identity of shareholders or the distribution of the shares among them. From time to time, however, we conduct surveys, using the assistance of banks, to form estimates as to Bayer AG's shareholder base. Our last such survey measured our shareholder structure as of June 1, 2001. The survey recorded responses with respect to 95.6 percent of our approximately 500,000 shareholders. Of this number, 94 percent were individuals, who together owned 24 percent of the shares. Approximately 55,000, or 12 percent, of the individual shareholders were Bayer employees, who together held approximately 2 percent of Bayer AG's outstanding shares. Institutional investors (e.g., banks, insurance companies and investment funds) held another 67 percent of the shares. Shareholders in Germany numbered approximately 437,000 and owned 61 percent of the shares. Approximately 59,000 shareholders in 135 other countries held 39 percent of the shares. Of this group, British shareholders held approximately 10 percent, and U.S. shareholders about 8 percent, of the shares.

To our knowledge, we are not directly or indirectly owned or controlled by another corporation or by any government, and there are no arrangements which may result in a change in control.

See also "Share Ownership" in Item 6, *Directors, Senior Management and Employees*.

### **Related Party Transactions**

In the ordinary course of business, we purchase materials, supplies and services from numerous companies throughout the world. Members of Bayer AG's Supervisory Board are affiliated with some of these companies. We conduct our transactions with such companies on an arm's length basis. We do not consider the amounts involved in such transactions to be material to our business and believe that these amounts are not material to the business of the companies involved.

During our three most recent complete financial years and through the date of this registration statement, we have not been involved in, and we do not currently anticipate becoming involved in, any transactions that are material to us or any of our related parties and that are unusual in their nature or conditions. We have not made any outstanding loans to or for the benefit of:

- enterprises that, directly or indirectly, control or are controlled by, or are under common control with us;
- enterprises in which we have significant influence or which have significant influence over us;
- shareholders beneficially owning a 10 percent or greater interest in our voting power;
- key management personnel; or
- enterprises in which persons described above own, directly or indirectly, a substantial interest in the voting power.

### **Interests of Experts and Counsel**

Not applicable.

## **Item 8. Financial Information**

### **Consolidated Financial Statements and Other Financial Information**

See Item 18.

### **Legal Proceedings**

Bayer is involved in a number of legal proceedings. As a global company active in a wide range of life sciences and chemical activities, we may in the normal course of our business become involved in proceedings relating to such matters as:

- product liability;
- patent validity and infringement disputes;
- tax assessments;
- competition and antitrust; and
- past waste disposal practices and release of chemicals into the environment.

We cannot predict with certainty the outcome of any proceedings in which we are or may become involved. An adverse decision in a lawsuit seeking damages from us could result in a monetary award to the plaintiff and, to the extent not covered by our insurance policies, could significantly harm our business or the result of our operations. If we lose a case in which we seek to enforce our patent rights, we could sustain a loss of future revenue as other manufacturers begin to market products we developed.

In the remainder of this subsection, we describe what we believe to be the most significant of the proceedings in which Bayer AG or its subsidiaries are currently involved.

#### ***Patent validity challenges and infringement proceedings; patent-related antitrust actions***

In the United States, Bayer AG and its U.S. subsidiary Bayer Corporation are plaintiffs or co-plaintiffs in a number of patent infringement actions against generic drug manufacturers. The lawsuits arose because these manufacturers filed applications in the United States for regulatory approval of generic versions of products containing the active ingredients ciprofloxacin or nifedipine marketed by Bayer or its licensees. Some of these actions have, in turn, given rise to lawsuits alleging that Bayer AG, Bayer Corporation and other parties had violated federal and state antitrust and similar statutes.

Generic drug manufacturers may receive approval to market formerly patented products after all applicable patent protections have expired. A generic drug manufacturer may, however, attempt to avoid a patent prior to its scheduled expiry by attacking its validity or enforceability. In the United States, the Federal Food, Drug, and Cosmetics Act enables generic manufacturers wishing to market a bio-equivalent version of another manufacturer's product to seek regulatory approval by filing an Abbreviated New Drug Application (ANDA). In its ANDA, the applicant must state the basis on which it seeks to avoid any applicable patents.

One basis for seeking approval is a claim that the applicant's product does not infringe existing patent rights or that the patent is invalid or unenforceable. This claim is commonly known as a "paragraph IV certification" or "ANDA (IV)". Under the Act, the filing of a paragraph IV certification is deemed an infringement of patent rights. The Act permits the holder of the patent rights to file an infringement action against the ANDA applicant within 45 days of receiving notice of the paragraph IV certification. If the holder of the patent rights chooses not to file suit within this period, the FDA may approve the ANDA immediately. The filing of a suit, however, stays final FDA approval of the ANDA for a period of 30 months. The court may shorten or extend this period. If the court rules that the applicant's product will not infringe the patent or that the patent is invalid or unenforceable, the FDA may grant approval immediately. If, on the other hand, the court rules that the product will infringe the patent, the FDA may not grant final approval until the original patent has expired.

### *Ciprofloxacin-related actions*

*Patent-related actions.* In January 1997, Bayer AG and Bayer Corporation settled a patent infringement suit against Barr Laboratories, Inc. This suit arose when Barr filed an ANDA (IV) seeking regulatory approval of a generic form of Bayer's ciprofloxacin anti-infective product, which we sell in the United States under the trademark Cipro®. Under the settlement agreement, Barr and Rugby Laboratories Inc., another generic manufacturer that supported Barr during the infringement suit, agreed to dismiss the litigation, acknowledging the validity and enforceability of Bayer's patent rights, and we agreed to pay each company \$24.5 million. The agreement gave us the option, until our patent expires in 2003, to supply Barr and Rugby's then parent company Hoechst Marion Roussel Inc. with ciprofloxacin products which they could then market under a license from Bayer using a single trade name, or else to make quarterly cash payments. Since concluding the settlement agreement, we have opted to make payments. Shortly after settling this suit, we applied to the U.S. Patent and Trademark Office for a reexamination of our patent. The Patent and Trademark Office reissued the patent in February 1999.

In April 1999, Danbury Pharmacal Inc., an affiliate of Schein Pharmaceutical, Inc., filed an ANDA (IV) alleging that our ciprofloxacin patent was invalid. Mylan Pharmaceuticals, Inc., an affiliate of Mylan Laboratories, Inc., filed an ANDA (IV) challenging our ciprofloxacin patent in September 1999. To protect and enforce our patent rights, Bayer AG together with Bayer Corporation as licensee filed two lawsuits against Danbury Pharmacal and Schein Pharmaceutical and one lawsuit against Mylan Pharmaceuticals and Mylan Laboratories in 1999, and a second lawsuit against Mylan Pharmaceuticals and Mylan Laboratories in 2000. Reddy Cheminor, Inc. intervened as an additional defendant in the Danbury/Schein suits. All these suits were consolidated for pre-trial proceedings and trial before the U.S. federal District Court for the District of New Jersey.

In their responses, the defendants alleged the invalidity and unenforceability of our reexamined patent on several grounds. They then moved for summary judgment on the invalidity issue, and we filed a cross-motion for partial summary judgment. In February 2001, the district court denied the defendants' motion and granted our cross-motion. The court subsequently entered a final judgment in our favor, confirming the validity and enforceability of the patent. The defendants appealed this judgment to the Court of Appeals for the Federal Circuit, which heard oral arguments on January 7, 2002.

In addition, Bayer AG and Bayer Corporation filed a patent infringement action in May 2001 against Carlsbad Technology, Inc., arising from Carlsbad's ANDA (IV) filing seeking regulatory approval of its generic version of Cipro®. Carlsbad filed two motions for summary judgment. The first motion alleged as a matter of patent procedure that Bayer's patent as it relates to ciprofloxacin should expire in October 2002 and not, as determined by the Patent and Trademark Office, in December 2003. Bayer filed a cross-motion for summary judgment that the expiration date is in December 2003. In its second motion, Carlsbad alleged that ciprofloxacin was obvious in light of the prior art. The federal District Court for the Southern District of California denied both Carlsbad motions in October, 2001 and granted summary judgment to Bayer on its cross-motion. Carlsbad has appealed the decision denying the first motion to the Court of Appeals for the Federal Circuit. A trial regarding the arguments of obviousness raised in Carlsbad's second motion is currently scheduled to begin on April 30, 2002. Carlsbad has since withdrawn all other defenses it had originally raised challenging the validity and enforceability of Bayer AG's ciprofloxacin patent.

If we lost our patent protection for ciprofloxacin, or if the expiration of the patent were accelerated to October 2002, we believe that we would forego significant revenue. We intend to continue taking vigorous action to maintain our ciprofloxacin patent rights in the United States through their normal expiry in December 2003.

*Antitrust actions.* Bayer Corporation has been named as a defendant in 38 putative class action lawsuits, one individual lawsuit and one consumer protection group lawsuit filed in a number of state and federal courts in the United States. Bayer AG has also been named as defendant in twenty of these cases, including the individual lawsuit and the consumer protection group lawsuit; it has been served with process in the individual lawsuit and twelve of the putative class action lawsuits. In addition, Barr Laboratories, Aventis S.A., Hoechst Marion Roussel, Inc., Rugby Laboratories, Inc. and Watson Pharmaceuticals, Inc. have each been named as defendant in one or more of these lawsuits. The plaintiffs in these suits allege that they are direct or indirect purchasers of Cipro® who were damaged because Bayer's settlement of the Barr ANDA (IV) litigation prevented generic

manufacturers from selling a generic version of Cipro®. The plaintiffs allege that the defendants violated various federal antitrust and state business, antitrust, unfair trade practices and consumer protection statutes, and seek treble damages and injunctive relief.

These proceedings are at an early stage. None of the relevant courts has certified a class. The Judicial Panel for Multidistrict Litigation, or MDL Panel, transferred 35 of these cases to the U.S. federal District Court for the Eastern District of New York for coordinated pre-trial proceedings. The federal court ordered nine of those cases remanded to various state courts in October 2001. Nine cases are currently pending in a California state court, where they should be coordinated under state law rules. Bayer is also involved in state court proceedings occurring in Florida, New York, Kansas, Tennessee and Wisconsin.

The Barr settlement is also the subject of ongoing antitrust investigations by the U.S. Federal Trade Commission and a number of state attorneys general.

Because these cases in the aggregate allege substantial unquantified damages and also seek treble and punitive damages and penalties, it is possible that the ultimate liability could be material to our results of operations and cash flows. Although we cannot predict the outcome of these cases with certainty, we believe that we have meritorious defenses to the antitrust allegations and intend to defend them vigorously.

#### *Nifedipine-related actions*

*Patent-related actions.* Since 1997 Bayer AG and Bayer Corporation have been involved in a number of patent infringement actions arising from ANDA (IV)s filed by generic manufacturers seeking regulatory marketing approval for allegedly bio-equivalent versions of our brand-name product Adalat® CC and Pfizer, Inc.'s brand-name product Procardia® XL. The active ingredient of these products is nifedipine. We own patent rights related to nifedipine drug product formulations. In addition, because Pfizer markets Procardia® XL under a license from Bayer, Bayer AG and Bayer Corporation became Pfizer's co-plaintiffs in the infringement actions relating to that product.

In August 1997 Bayer AG and Bayer Corporation filed a patent infringement suit against Elan Pharmaceutical Research Corp. and Elan's parent company, Elan Corp., plc, arising from Elan's ANDA (IV) for a drug product containing nifedipine. In March 1999, the U.S. federal District Court for the Northern District of Georgia granted summary judgment against us, holding that the particular generic product for which Elan sought marketing approval as described in its ANDA would not violate our patent. In May 2000, the U.S. Court of Appeals for the Federal Circuit affirmed this decision.

In March 2001 the same district court granted summary judgment against Bayer AG and Bayer Corporation in a second ANDA (IV) related suit that we had filed against Elan and later in another action that we had filed against Elan, Biovail Labs, Inc., Biovail Corp. International and Teva Pharmaceuticals USA, Inc., arising from these parties' commercial sale of an allegedly bio-equivalent nifedipine product. Our appeal against the decisions in these two cases is currently pending before the Federal Circuit.

Bayer AG and Bayer Corporation have also filed four ANDA (IV) related lawsuits against Biovail and two lawsuits arising from the commercial sale of nifedipine products by Biovail and Teva. These suits are currently pending before the U.S. federal District Court for the District of Puerto Rico. The court has stayed these suits pending resolution of the appeals before the Federal Circuit.

Because defendants have prevailed in some of these lawsuits, it is possible that they may also prevail in the trials and appeals currently pending. We believe, however, that we have meritorious claims in the pending cases, and intend to prosecute these claims vigorously. Because some of our nifedipine dosages have already begun to face generic competition, we do not believe that an adverse result in the pending cases would result in a material amount of additional foregone revenue.

*Antitrust actions.* Biovail has filed an antitrust lawsuit against Bayer AG, Bayer Corporation and Pfizer in the U.S. federal District Court for the District of Western Pennsylvania. Biovail is seeking a declaratory judgment that Bayer's nifedipine patents are invalid. Biovail also seeks damages under federal and state antitrust statutes

alleging, among other things, that Bayer illegally asserted its patent rights. The district court has stayed this litigation pending resolution of the nifedipine-related patent infringement actions against Biovail.

This proceeding is at an early stage. However, we believe that we have meritorious defenses to the antitrust allegations, and we intend to defend this case vigorously.

### ***Product liability proceedings***

*HIV-related actions.* During the past decade, our U.S. subsidiary Bayer Corporation, as well as other fractionators of plasma products, have been involved in lawsuits alleging that hemophiliacs became infected with the human immunodeficiency virus (HIV), or ultimately developed AIDS, by using clotting factor concentrates derived from human plasma. Plaintiffs have brought actions on these grounds in the United States, Ireland, Italy, Taiwan, Argentina, Canada, Japan, and Germany.

In the United States, a class action against Bayer Corporation and three other defendants consolidated the HIV-related claims of more than 6,000 claimants and claimant groups. The parties resolved this class action through a \$600 million settlement. Bayer Corporation's share of this settlement was approximately \$290 million. Bayer Corporation has also satisfactorily settled nearly 400 lawsuits by plaintiffs who opted out of the class action. Approximately 20 suits remain pending in the United States. Although Bayer Corporation has prevailed in the majority of cases that have proceeded to trial, plaintiffs were successful in three cases. The juries in each of these cases awarded damages not exceeding \$2 million. In addition, in 1999 a Louisiana jury awarded a plaintiff damages of \$35 million. However, the trial court set this award aside, and an appellate court upheld this decision. Bayer Corporation has since settled this matter in the context of a group settlement of nearly 100 Louisiana cases, of which Bayer Corporation's share was less than \$50 million.

Although Bayer Corporation intends to defend aggressively the remaining HIV-related lawsuits in various countries, we have made what we believe to be appropriate provisions should these suits result in judgments in favor of the plaintiffs. These provisions are not material to the Bayer Group.

*Cerivastatin-related actions.* In August 2001, we voluntarily ceased marketing our cerivastatin anticholesterol products in response to reports of serious side effects in some patients. See Item 4, *Information about the Company — Health Care — Pharmaceuticals — Products*. Since this withdrawal, more than 336 lawsuits, many of them putative class actions, have been initiated in the United States against Bayer Corporation and Bayer AG. The actions in the United States have been primarily on theories of product liability, consumer fraud, medical monitoring, predatory pricing and unjust enrichment. These lawsuits seek remedies including compensatory and punitive damages, disgorgement of funds received from the marketing and sale of cerivastatin and the establishment of a trust fund to finance the medical monitoring of former cerivastatin users. The federal cases are being transferred to the U.S. Federal District Court for the District of Minnesota for coordinated discovery and other pre-trial proceedings. In addition, several actions have been initiated against other companies of the Bayer Group in other countries. We expect additional lawsuits to be filed in the United States and elsewhere. If the plaintiffs in these actions were to be successful, it is possible that the ultimate liability could be material to our results of operations and cash flows. We believe that we have meritorious defenses in these actions, and intend to defend them vigorously.

*Phenylpropanolamine (PPA) actions.* In late 2000, Bayer Corporation discontinued marketing Alka-Seltzer Plus effervescent medicines containing PPA in the United States, Canada and various Latin American countries in response to a recommendation from the U.S. Food and Drug Administration to all manufacturers of drugs and medicines containing PPA. The FDA issued this recommendation after one epidemiological study of a small number of patients suggested a possible association between PPA and hemorrhagic stroke in women of certain ages. Over 326 class and individual lawsuits have been initiated in the United States against Bayer Corporation. Bayer AG has also been named a defendant in some of the cases, but has not been served with process. The MDL Panel has assigned management of the federal court cases to the U.S. federal District Court for the Western District of Washington. It is probable that additional actions will be initiated there or in other jurisdictions where products containing PPA were marketed. Bayer Corporation believes it has meritorious defenses to these actions and intends to defend them vigorously.

### ***Proceedings relating to the World War II era***

Bayer AG was one of a number of defendants in ten class actions filed in recent years before various U.S. federal courts and consolidated in 2000 before the federal District Court for the District of New Jersey. These suits sought class certification on behalf of persons — primarily residents of Eastern European countries — alleging that these persons were victims of forced labor during World War II or medical experiments during the period of national socialist rule prior to and during the war. In addition, one suit related to medical experiments named Bayer AG as sole defendant. The plaintiffs sought unspecified amounts of damages. No class was certified.

In July 2000, the United States, Germany, Israel and several Eastern European states concluded an Executive Agreement providing for the establishment of a federal German foundation to serve as the exclusive source of remedies for all present and future claims that have been or may be asserted against German companies arising out of the national socialist era and World War II. This foundation, called “Remembrance, Responsibility, and the Future”, was established by German law in August 2000. Its founders are the German government and a number of German companies, among them Bayer AG. The foundation administers a fund in the amount of DM 10 billion, made available by the German public sector and by German companies, including Bayer AG. The portion of the fund to be contributed by German companies totals DM 5 billion.

In 2000, we transferred Bayer’s DM 100 million contribution to the fund to the foundation’s escrow account. In 2001, we increased this contribution by DM 10 million. In addition, the founding members of the foundation initiative, including Bayer, committed themselves jointly to cover any shortfall if German companies failed to contribute their full DM 5 billion portion of the fund. On the basis of this commitment, we made a final contribution to the fund of DM 26.1 million in August 2001. The foundation is now fully funded.

It is a central element of the Executive Agreement that the foundation may begin payments only when all pending lawsuits are voluntarily dismissed with prejudice, thereby creating legal certainty (*Rechtssicherheit*). Accordingly, the federal District Court for the District of New Jersey dismissed the suits described above in November 2000. Other courts followed in 2001, dismissing World War II era related suits in which Bayer AG was not involved. On May 30, 2001, the German parliament passed a resolution recognizing the achievement of adequate legal certainty, thereby enabling the foundation to begin making payments to victims. Payments began in the summer of 2001.

Under the Executive Agreement, the government of the United States has committed itself to file a “statement of interest” in any new lawsuits filed before a U.S. court against German companies in connection with national socialist era and World War II-related claims, recommending that the court dismiss the suit. Although the doctrine of separation of powers prevents the U.S. government from compelling the court to comply with its statement of interest, we believe that the probability of any future suit progressing beyond the filing stage is therefore remote.

### **Dividend Policy and Liquidation Proceeds**

Our shareholders may declare dividends at an ordinary general shareholders’ meeting, which must be held within the first eight months of each fiscal year.

Under German law, Bayer AG may pay dividends only from balance sheet profits reflected in its unconsolidated financial statements (as opposed to the consolidated financial statements of the Bayer Group), as adopted and approved by the Board of Management and the Supervisory Board. In determining the balance sheet profits that may be distributed as dividends, the Board of Management may under German law allocate to retained earnings (*Gewinnrücklagen*) up to 50 percent of the net income of Bayer AG for the fiscal year that remains after deducting amounts to be allocated to legal and statutory reserves and losses carried forward. The Board of Management may also increase balance sheet profits when preparing the financial statements with funds withdrawn from retained earnings.

Our shareholders, in their resolution on the appropriation of balance sheet profits, may carry forward balance sheet profits in part or in full and may allocate additional amounts to retained earnings. Profits carried forward will be automatically incorporated in the balance sheet profits of the next fiscal year and may be used in their

entirety to pay dividends in the next fiscal year. Amounts allocated to the retained earnings are available for dividends only if and to the extent the retained earnings have been dissolved by the Board of Management when preparing the financial statements, thereby increasing the balance sheet profits.

Dividends approved at an ordinary general shareholders' meeting are payable promptly after the meeting, unless otherwise decided at the meeting. Because all of Bayer AG's shares are in book-entry form represented by a global certificate deposited with Clearstream Banking AG in Frankfurt am Main, Germany, shareholders receive dividends through Clearstream for credit to their deposit accounts.

We expect to continue to pay dividends, although we can give no assurance as to the payment of a dividend for any particular year or as to the particular amounts that we may pay from year to year.

Apart from liquidation as a result of insolvency proceedings, Bayer AG may be liquidated only with a combined majority of the votes cast and three-quarters of the share capital present or represented at a shareholders' meeting at which the vote is taken. In accordance with the German Stock Corporation Act, upon a liquidation of Bayer AG, any liquidation proceeds remaining after paying off all of Bayer AG's liabilities would be distributed among the shareholders in proportion to the total number of shares held by each shareholder.

See also "Dividends" in Item 3, *Key Information*.

## Item 9. The Listing

### Listing Details

Bayer AG's shares will trade on the New York Stock Exchange under the symbol BAY in the form of American Depositary Shares, or ADSs. Each ADS represents one share. The ADSs are evidenced by American Depositary Receipts (ADRs) issued by The Bank of New York, as Depositary, under a Deposit Agreement expected to be dated as of January 16, 2002, among us, the Depositary and the registered holders of ADRs from time to time.

The primary market for trading in Bayer AG shares has previously been the Frankfurt Stock Exchange. The shares are also listed on the other seven German stock exchanges as well as most European stock exchanges and the Tokyo Stock Exchange.

The table below sets forth, for the periods indicated, the reported high and low quoted prices per Bayer AG share on the Frankfurt Stock Exchange.

	<u>High</u>	<u>Low</u>
	(in euros)	
<b>1997</b> .....	41.16	28.12
<b>1998</b> .....	49.80	29.40
<b>1999:</b>		
First quarter .....	38.90	29.74
Second quarter .....	41.64	34.22
Third quarter .....	43.87	36.26
Fourth quarter .....	47.65	34.20
<b>2000:</b>		
First quarter .....	49.40	39.51
Second quarter .....	47.63	38.52
Third quarter .....	49.17	40.20
Fourth quarter .....	56.50	41.82
<b>2001:</b>		
First quarter .....	58.00	44.79
Second quarter .....	50.15	42.42
Third quarter .....	47.25	23.90
Fourth quarter .....	38.49	30.48
<b>Previous six months:</b>		
July 2001 .....	47.25	42.69
August 2001 .....	47.24	32.50
September 2001 .....	36.98	23.90
October 2001 .....	37.32	29.41
November 2001 .....	39.00	32.40
December 2001 .....	37.30	34.42

The average daily volumes traded on the Frankfurt Stock Exchange for the years 2000, 1999 and 1998 were 2,549,929, 2,182,661 and 2,681,918, respectively. The average daily trading volume during the six months ended September 30, 2001 was 3,906,083.

## Item 10. Additional Information

### Description of Share Capital

In the section following we describe the material rights and restrictions that apply to Bayer AG's shares and includes a brief description of certain provisions of Bayer AG's Articles of Association and of German law. This description is a summary and does not purport to be complete. For a description of the dividend and liquidation rights of holders of Bayer AG's shares, see Item 8, *Financial Information — Dividend Policy and Liquidation Proceeds*.

### Share Capital and Form of Shares

At December 31, 2000, the subscribed and outstanding share capital (*Grundkapital*) of Bayer AG amounted to €1,869,675,315.20, consisting of 730,341,920 shares of no par value.

All shares of Bayer AG are of a single class and have been issued in bearer form. The shares are represented by a global certificate deposited with Clearstream Banking AG (formerly Deutsche Börse Clearing AG) in Frankfurt am Main, Germany. The Articles of Association exclude the right of shareholders to obtain individual share certificates (*Einzelverbriefung*). All shares are freely transferable.

Under German law and its Articles of Association, Bayer AG may issue preferred stock. An issuance of preferred stock, like any share issuance, would require either a resolution by the shareholders' meeting to increase the company's capital or the authorization of the Management Board by the shareholders' meeting to increase the company's capital with the consent of the Supervisory Board. Bayer AG does not currently have any shares of preferred stock outstanding.

At a general shareholders' meeting, our shareholders can resolve a capital increase by issuing new shares against contributions in cash or in kind. The resolution directing the issuance of shares and increase of share capital must be passed by a combined majority of the votes cast and a majority of three quarters of the share capital taking part in the vote. As discussed below, shareholders generally have pre-emptive rights entitling them to subscribe to any new issue of shares. To exclude pre-emptive rights in connection with a particular capital increase and share issuance, the shareholders must pass a resolution by a combined majority of the votes cast and three quarters of the share capital taking part in the vote.

Our shareholders may also resolve with a combined majority of the votes cast and three quarters of the share capital taking part in the vote to authorize the Board of Management with the approval of the Supervisory Board to increase the share capital in one or several times up to a specified amount and issue new shares against contribution in cash or in kind, thus creating authorized capital (*genehmigtes Kapital*). The authorization may provide the exclusion of pre-emptive rights and is limited for a period of five years upon registration of the authorized capital in the commercial register. The amount of the authorized capital may not exceed in aggregate 50 percent of the outstanding share capital at the time of the shareholders' resolution.

Furthermore, our shareholders may resolve a conditional capital increase up to a specified amount only for certain limited purposes, such as granting conversion or pre-emptive rights to holders of convertible bonds or bonds with warrants attached, issuing shares as consideration in a merger with another company or offering stock options to the management and employees of Bayer AG or its affiliates (*bedingtes Kapital*). The resolution requires a combined majority of the votes cast and three quarters of the share capital taking part in the vote. The nominal amount of a conditional capital increase may not exceed 50 percent of the share capital outstanding at the time the shareholders resolve the conditional capital increase. If the shareholders create conditional capital to cover the issuance of stock options to management and employees, the nominal value of the conditional capital may not exceed 10 percent of the share capital outstanding at the time the conditional capital increase is resolved.

Bayer AG currently has unissued authorized capital totaling €629,581,003.64. This amount represents three separate amounts of authorized capital resolved by shareholders. The Board of Management, with the approval of the Supervisory Board, may use the amount of authorized capital I and II until April 30, 2002, to increase the capital of Bayer AG in one or more stages by issuing new shares against cash contributions. The Board of Management, with the approval of the Supervisory Board, may use the amount of authorized capital III until

April 27, 2006, to increase the capital in one or more stages by issuing new shares against contributions in kind. The authorized capital amounts are as follows:

- *Authorized Capital I* in the amount of €153,387,564.36. The Board of Management may exclude shareholders' pre-emptive rights with respect to any shares issued out of this authorized capital to the extent necessary to grant subscription rights to the holders of warrants attached to bonds that Bayer AG has issued or holders of convertible bonds or bonds with warrants attached that Bayer AG or its subsidiaries may issue in the future.
- *Authorized Capital II* in the amount of €102,258,376.24. The Board of Management may exclude pre-emptive rights with respect to the shares issued out of this authorized capital. If the Board of Management excludes these rights with respect to shares issued out of this authorized capital, the issue price may not be substantially lower than the then market price of Bayer AG shares. If the Board of Management does not exclude pre-emptive rights with respect to new shares issued out of this authorized capital, it may exclude these rights only to the extent necessary to grant subscription rights to the holders of warrants attached to bonds that Bayer AG has issued or holders of convertible bonds or bonds with warrants attached that Bayer AG or its subsidiaries may issue in the future.
- *Authorized Capital III* in the amount of €373,935,063.04. The shareholders' pre-emptive rights are excluded. The Board of Management is authorized to determine the further conditions of the capital increase with the consent of the Supervisory Board.

On April 30, 1999, the shareholders of Bayer AG resolved a conditional capital in the amount of €83,200,000. The share capital is only increased to the extent that the holders of convertible bonds or warrants issued by Bayer AG or a wholly-owned subsidiary on or before April 29, 2004, exercise the exchange rights attached to these securities.

The following table describes developments in Bayer AG's share capital during the past five fiscal years.

<u>Year(1)</u>	<u>Amount of capital increase</u> (in euros)	<u>Share capital after increase</u> (in euros)	<u>Reason for capital increase</u>
1996.....	48,273,700	1,851,490,160	Share issuance upon exercise of warrants
1997.....	15,599,311	1,867,089,471	Share issuance upon exercise of warrants
1998.....	—	1,867,089,471	(None)
1999.....	2,585,844	1,869,675,315	Transfer from capital reserves
2000.....	—	1,869,675,315	(None)

- (1) The shareholders of Bayer AG resolved the conversion of Bayer AG's capital stock to euros on April 30, 1999. German mark figures for periods prior to this resolution have been restated in euros at the irrevocably fixed DM/euro exchange rate of DM 1.95583 = €1.00.

### ***Voting Rights and Shareholders' Meetings***

Each share entitles its holder to cast one vote at general shareholders' meetings. According to the German Stock Corporation Act and the Articles of Association, resolutions at a general shareholders' meeting, including those for the amendment of the Articles of Association, require a simple majority of the votes cast, unless a greater majority is required by law. Under the German Stock Corporation Act, the following significant resolutions require a majority of the votes cast and of at least three quarters of the share capital represented with respect to the vote taken on such resolution:

- share capital increases that exclude shareholder pre-emptive rights;
- the creation of authorized capital or conditional capital increases;
- changes in the Articles of Association;
- capital decreases;

- the dissolution of Bayer AG;
- a merger of Bayer AG into or a consolidation of Bayer AG with another stock corporation;
- a split, spin-off, or transfer of all or substantially all of Bayer AG's assets;
- a change in Bayer AG's corporate form; and
- the execution of enterprise agreements (*Unternehmensverträge*), including corporate control and profit and loss absorption agreements and agreements for the integration (*Eingliederung*) of another company into Bayer AG.

Under the German Stock Corporation Act the Board of Management must call, within the first eight months of each fiscal year, an ordinary general shareholders' meeting to provide shareholders with the annual financial statements and management report and to decide on the appropriation of balance sheet profits. An extraordinary shareholders' meeting may otherwise be called by:

- the Board of Management,
- the Supervisory Board, or
- shareholders representing, in the aggregate, at least 5 percent of the issued share capital of Bayer AG.

To be eligible to attend and vote at a general shareholders' meeting, a shareholder must deposit his shares (or certificates of deposit of a bank serving as a depository for the shares) not later than the seventh day prior to the date of the meeting with:

- Bayer AG,
- a German notary,
- a securities depository bank (*Wertpapiersammelbank*), or
- a bank specified in the notice calling the general shareholders' meeting.

Shares are also deemed "deposited" if the shareholder arranges for them to be locked (*gesperrt*) in the bank account in which they are held until the end of the general shareholders' meeting. Bayer AG must publish notice of a general shareholders' meeting in the German Federal Gazette (*Bundesanzeiger*) and in one other major daily German newspaper at least one month prior to the date by which shareholders must deposit their shares, stating the time, place, agenda and conditions for participation at the meeting.

Neither the German Stock Corporation Act nor the Articles of Association requires any minimum quorum for a general shareholders' meeting.

### ***Pre-Emptive Rights***

Under the German Stock Corporation Act, a shareholder of a corporation has a preferential right to subscribe to any issue by the corporation of new shares, bonds convertible into shares, bonds with warrants to purchase shares or instruments granting a profit participation right. The proportional share of the issue to which the shareholder may subscribe is equal to the proportional share of existing capital of the corporation that the shareholder holds. Subscription rights may be transferred during the exercise period for these rights and are generally traded on the German stock exchanges.

When authorizing a capital increase and a new issue of shares, the shareholders of Bayer AG may exclude pre-emptive rights, in whole or in part, by a resolution passed by a three-quarters majority of the share capital taking part in the vote. In addition, when creating authorized capital, shareholders may, by this same majority, authorize the Board of Management to exclude the pre-emptive rights attaching to any shares issued pursuant to the authorized capital. See above, "— Share Capital and Form of Shares" for a description of the Board of Management's authority to exclude pre-emptive rights with respect to the Bayer AG's three current components of authorized capital.

### ***Acquisition by Bayer AG of its own shares***

Under the German Stock Corporation Act, a stock corporation may acquire its own shares in a limited number of exceptional cases, including if so authorized by a shareholder resolution adopted at a general shareholders' meeting. At the general shareholders' meeting of Bayer AG held on April 27, 2001, the shareholders authorized the Board of Management to buy back shares representing up to 10 percent of Bayer AG's outstanding share capital. The Board of Management may either cancel the shares so re-bought, reducing the company's outstanding share capital, or re-sell the shares subject to a further resolution adopted at a general shareholders' meeting. This resolution requires a majority of three quarters of the share capital taking part in the vote.

### ***Differences between U.S. and German law***

You should be aware that the rights of shareholders under German law and Bayer AG's historical practice differ in some important respects from those of shareholders of a U.S. corporation. In addition to the differences described in the preceding sub-sections of this Item 10, these differences include the following:

- Shareholders of a German corporation cannot use "cumulative voting" in electing members of the supervisory board.
- German law does not provide for the adoption of resolutions by shareholders through written consent in lieu of a meeting.
- Like most German companies, Bayer AG does not "stagger" the terms of office of the members of their supervisory boards.
- German law does not provide for the use of "poison pill" rights plans.
- With the exception of such information as annual reports that German corporations are required by law to publish, shareholders of German corporations are entitled to demand information from the company only in the framework of the shareholders' meeting, and then only with respect to items on the meeting's agenda.

In addition, as a non-U.S. company, Bayer AG is not subject to some of the provisions of U.S. securities law that apply to U.S. issuers. Bayer AG is not subject to the proxy rules promulgated under Section 14 of the Securities Exchange Act of 1934. Furthermore, the short-swing profit and recovery provisions under Section 16 of the Exchange Act do not apply to Bayer AG or its directors.

Neither German law nor the U.S. Exchange Act require Bayer AG to file quarterly reports of the type that U.S. issuers file on Form 10-Q. Bayer AG's historical practice, however, has been to publish its three-, six- and nine-month interim financial information. We expect to continue this practice, and to file this information with the Securities and Exchange Commission in the United States on Form 6-K.

### **Material contracts**

For a description of certain contracts that we regard as material to our research and development efforts, see Item 4, *Information on the Company — Research and Development*. We are not otherwise party to any contracts that we regard as material to our business or financial position.

### **Exchange controls**

There are currently no German foreign exchange control restrictions on the payment of dividends on the shares or the conduct of our operations.

### **Taxation**

The following is a discussion of the material U.S. federal income and German tax consequences to you as a Qualified Holder of Bayer AG shares. This discussion is based upon existing U.S. federal income and German tax

law, including legislation, regulations, administrative rulings and court decisions, as in effect on the date of this registration statement, all of which are subject to change, possibly with retroactive effect.

For the purposes of this discussion, you are a “Qualified Holder” if you are the beneficial owner of ordinary Bayer AG shares and (1) are a resident of the United States for purposes of the Convention Between the United States of America and the Federal Republic of Germany for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital, as amended (the “Income Tax Treaty”), which generally includes an individual U.S. resident, a corporation created or organized under the laws of the United States, any state thereof or the District of Columbia and a partnership, estate or trust, to the extent its income is subject to taxation in the United States as the income of a U.S. resident, either in its hands or in the hands of its partners or beneficiaries, (2) do not hold Bayer AG shares as part of the business property of a permanent establishment located in Germany or as part of a fixed base located in Germany and used for the performance of independent personal services and (3) if you are not an individual, are not subject to the limitation on benefits restrictions in the Income Tax Treaty. This discussion assumes that you hold Bayer AG shares as a capital asset. This discussion does not address all aspects of U.S. federal income and German taxation that may be relevant to you in light of your particular circumstances. For example, this discussion does not apply to Qualified Holders whose shares were acquired pursuant to the exercise of an employee share option or otherwise as compensation or who are subject to special treatment under U.S. federal income tax laws such as financial institutions, insurance companies, tax-exempt organizations, holders of 10 percent or more of Bayer AG shares, broker-dealers in securities or/currencies, persons that hold Bayer AG shares as part of a “hedging” or a “conversion” transaction or as a position in a “straddle”, and persons whose functional currency is other than the U.S. dollar. This discussion also does not address any aspects of state, local or non-U.S. (other than certain German) tax law. If a partnership holds Bayer AG shares, the tax treatment of a partner generally will depend upon the status of the partner and the activities of the partnership. If a Qualified Holder is a partner in a partnership that holds Bayer AG shares, the Holder is urged to consult its own tax advisor regarding the specific tax consequences of the purchase, ownership and disposition of the Bayer AG shares.

In general, for U.S. federal income tax purposes, if you are a Qualified Holder of ADRs evidencing ADSs, you will be treated as the owner of the Bayer AG shares represented by such ADSs. Unless the context requires otherwise, all references in this section to Bayer “shares” are deemed to refer likewise to ADSs evidencing an ownership interest in Bayer AG shares.

**We urge you to consult your tax advisor as to the U.S. federal income and German tax consequences of holding Bayer AG shares, including the particular facts and circumstances that may be unique to you, and as to any other tax consequences of holding Bayer AG shares.**

### *Taxation of Dividends*

As of January 1, 2002, we are required to withhold tax on dividends in respect of the 2001 fiscal year an amount equal to 20 percent of the gross amount paid to resident and non-resident shareholders. As a Qualified Holder, you are eligible to receive a partial refund of this withholding tax under the Income Tax Treaty (subject to certain limitations), effectively reducing the withholding tax to 15 percent of the gross amount of the dividend. In addition, so long as the German imputation system provides German resident individual shareholders with a tax credit in respect of dividends paid by German corporations, under the Income Tax Treaty, you will be entitled to an additional refund equal to 5 percent of the gross amount of the dividend. For U.S. federal income tax purposes, the benefit resulting from this additional 5 percent treaty refund is treated as a refund received by you with respect to German corporate taxes equal to 5.88 percent of the gross amount of the dividend, subject to a German withholding tax of 0.88 percent (15 percent of 5.88 percent). Thus, for each \$100 of gross dividend paid by Bayer AG to you, the dividend will be subject to a German withholding tax of \$15 under the Income Tax Treaty. The cash received per \$100 of gross dividend will thus be \$85. For U.S. federal income tax purposes, the gross amount of the dividend, including German withholding tax, will be includible in your gross income.

For U.S. federal income tax purposes, you will be treated as receiving a total dividend of \$105.88 (to the extent paid out of our current or accumulated earnings and profits as determined for U.S. federal income tax purposes), consisting of the \$100 gross dividend and the deemed refund of German corporate tax of \$5.88. The

notional \$105.88 dividend is deemed to have been subject to German withholding tax of \$15.88. Thus, for each \$100 of gross dividend, you will include \$105.88 in gross income and may be entitled to a foreign tax credit of \$15.88. You will not be entitled to the dividends received deduction with respect to any dividends we pay.

A surtax on the German withholding tax is currently levied on dividend distributions paid by a German resident company. The rate of this surtax is 5.5 percent. The surtax amounts to 1.375 percent (5.5 percent x 25 percent) of the gross dividend amount. The surtax will equal 1.1 percent (5.5 percent x 20 percent) of the gross dividend paid out in 2002 and thereafter. Under the Income Tax Treaty, you will be entitled to a full refund of this surtax.

Dividends paid to you in euros will be included in income in a U.S. dollar amount, calculated by reference to the exchange rate in effect on the date the dividends are received or treated as received by you. If you convert dividends paid in euros into U.S. dollars on the date received or treated as received, you generally should not be required to recognize foreign currency gain or loss in respect of such dividend.

Under Section 904(g) of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), dividends paid by a foreign corporation that is treated as more than 50 percent owned by U.S. persons may be treated as U.S. source income (rather than foreign source income). Such treatment may adversely affect Qualified Holders' ability to use foreign tax credits. It is possible that we may be treated as more than 50 percent owned by United States persons for the purposes of Section 904(g) of the Code.

The United States Treasury has expressed concerns that parties to whom ADSs are released may be taking actions that are inconsistent with the claiming of foreign tax credits for Qualified Holders of ADSs. Accordingly, the creditability of German withholding tax on dividends could be affected by future actions that may be taken by the United States Treasury.

### ***Refund Procedures***

To claim the refund reflecting the reduction of the German withholding tax from 25 percent to 15 percent and the refund of the 5.5 percent German surtax, when applicable, you must submit (either directly, or, as described below, through our U.S. transfer agent or the Depository Trust Company) a claim for refund to the German tax authorities, with the original bank voucher (or a certified copy thereof) issued by the paying entity documenting the tax withheld within four years from the end of the calendar year in which the dividend is received. Claims for refunds are made on a special form, which must be filed with the German tax authorities at the following address: Bundesamt für Finanzen, 53221 Bonn-Beuel, Germany. A refund claim form may be obtained from the German tax authorities at the same address as where applications are filed, from the Embassy of the Federal Republic of Germany, 4645 Reservoir Road, N.W., Washington, D.C. 20007-1998 or from the Office of International Operations, Internal Revenue Service, 1325 K Street, N.W., Washington, D.C. 20225, Attention: Taxpayer Service Division, Room 900.

You must also submit to the German tax authorities certification of your last filed U.S. federal income tax return (IRS Form 6166). You can obtain this certification from the office of the Director of the Internal Revenue Service Center by filing a request for certification with the Internal Revenue Service Center in Philadelphia, Pennsylvania, Foreign Certificate Request, P.O. Box 16347, Philadelphia, PA 19114-0447. Requests for certification must be made in writing and must include your name, social security number or employer identification number, tax return form number and tax period for which you are requesting certification. The Internal Revenue Service will send the certification directly to the German tax authorities. This certification is valid for three years and need only be resubmitted in a fourth year in the event of a subsequent application for refund.

Our U.S. transfer agent will perform administrative functions necessary to claim the refund reflecting the reduction in German withholding tax from 20 percent to 15 percent and the refund of the 5.5 percent German surtax, when applicable, for you. However, these arrangements may be amended or revoked at any time in the future. Under the current procedure, the U.S. transfer agent will prepare the German claim for refund forms on your behalf and file them with the German tax authorities. In order for the U.S. transfer agent to file the claim for refund forms, the U.S. transfer agent will prepare and mail to you, and will ask that you sign and return to the

U.S. transfer agent, (1) a statement authorizing the U.S. transfer agent to perform these procedures and agreeing that the German tax authorities may inform the Internal Revenue Service of any refunds of German taxes and (2) a written authorization to remit the refund of withholding to an account other than yours. The U.S. transfer agent will also require certification of your last filed United States federal income tax return (IRS Form 6166). The U.S. transfer agent will attach the signed statement, the IRS Form 6166 and the documentation issued by the paying agency documenting the dividend paid and the tax withheld to the claim for refund form and file them with the German tax authorities.

A simplified refund procedure will be available to you if your Bayer AG shares are registered with brokers participating in the Depository Trust Company. Under this simplified refund procedure, the Depository Trust Company will provide the German tax authorities with electronic certification of your U.S. taxpayer status based on information it receives from its broker participants, and will claim a refund on your behalf. If approved by the German tax authorities, a similar simplified refund procedure may also be implemented by the U.S. transfer agent in the future. Under such a simplified refund procedure, following each dividend payment, the U.S. transfer agent would file a claim for refund automatically on your behalf if you have instructed the U.S. transfer agent in writing to file on your behalf.

The German tax authorities will issue refunds denominated in euro. The refunds will be issued in the name of the U.S. transfer agent or the Depository Trust Company, as the case may be, which will then convert the refunds to dollars and make corresponding refund payments to you or your broker. This broker, in turn, will remit corresponding refund amounts to you.

If you receive a refund attributable to reduced withholding taxes under the Income Tax Treaty, you may be required to recognize foreign currency gain or loss, which will be treated as ordinary income or loss to the extent that the dollar value of the refund received or treated as received by you differs from the U.S. dollar equivalent of the refund on the date the dividend on which such withholding taxes were imposed was received or treated as received by you.

### ***Taxation of Capital Gains***

Under the Income Tax Treaty, you will not be liable for German tax on capital gains realized or accrued on the sale or other disposition of Bayer AG shares.

Upon a sale or other disposition of Bayer AG shares, you will recognize capital gain or loss for U.S. federal income tax purposes equal to the difference between the amount realized and your adjusted tax basis in the Bayer AG shares. This gain or loss generally will be U.S. source gain or loss, and will be treated as long-term capital gain or loss if your holding period in the Bayer AG shares exceeds one year. The deductibility of capital losses is subject to significant limitations. If you are an individual Qualified Holder of Bayer AG shares, any capital gain generally will be subject to tax at preferential rates, provided certain holding periods are met.

### ***Passive Foreign Investment Company Status***

We believe that we will not be classified as a passive foreign investment company (a “PFIC”) for U.S. federal income tax purposes for our current taxable year or any future taxable year. However, as this is a factual matter that must be determined annually at the close of each taxable year, there can be no certainty as to our actual PFIC status in any particular year until the close of the taxable year in question.

### ***German Gift and Inheritance Taxes***

The Convention between the United States of America and the Federal Republic of Germany for the Avoidance of Double Taxation with Respect to Taxes on Estates, Inheritances and Gifts, as amended (the “Estate Tax Treaty”), provides that an individual whose domicile is determined to be in the United States for purposes of such treaty will not be subject to German inheritance and gift tax (the equivalent of the U.S. federal estate and gift tax) on the individual’s death or making of a gift unless the Bayer AG shares (1) are part of the business property of a permanent establishment located in Germany or (2) are part of the assets of a fixed base of an individual located in Germany and used for the performance of independent personal services. An individual’s domicile in

the United States, however, does not prevent imposition of German inheritance and gift tax with respect to an heir, donee or other beneficiary who is domiciled in Germany at the time the individual died or the gift was made.

The Estate Tax Treaty also provides a credit against U.S. federal estate and gift tax liability for the amount of inheritance and gift tax paid in Germany, subject to certain limitations, in a case where the shares are subject both to German inheritance or gift tax and U.S. federal estate or gift tax.

### ***German Capital Tax (Vermögensteuer)***

The Income Tax Treaty provides that you will not be subject to German capital tax (*Vermögensteuer*) with respect to the Bayer AG shares. As a result of a judicial decision, the German capital tax (*Vermögensteuer*) presently is not imposed.

### ***Other German Taxes***

There are no German transfer, stamp or other similar taxes that would apply to you upon receipt, purchase, holding or sale of Bayer AG shares.

### ***U.S. Information Reporting and Backup Withholding***

Dividends on Bayer AG shares and payments of the proceeds of a sale of Bayer AG shares paid within the United States or through certain U.S.-related financial intermediaries are subject to information reporting and may be subject to backup withholding at a current rate of up to 30.5 percent rate unless you (1) are a corporation or other exempt recipient or (2) provide a taxpayer identification number and certifies that no loss of exemption from backup withholding has occurred. U.S. persons who are required to establish their exempt status generally must file IRS Form W-9 (Request for Taxpayer Identification Number and Certification). Non-U.S. holders generally will not be subject to U.S. information reporting or backup withholding. However, these holders may be required to provide certification of non-U.S. status (generally on IRS Form W-8BEN) in connection with payments received in the United States or through certain U.S.-related financial intermediaries.

Backup withholdings is not an additional tax. Amounts withheld as backup withholding may be credited against your U.S. federal income tax liability. You may obtain a refund of any excess amounts withheld under the backup withholding rules by filing the appropriate claim for refund with the Internal Revenue Service and furnishing any required information.

### **Dividends and paying agents**

See Item 14, *Description of Securities to Be Registered — American Depositary Shares*.

### **Statement by experts**

Not applicable.

### **Documents on display**

You can inspect the documents concerning Bayer AG mentioned in this registration statement during normal business hours at Bayer AG's headquarters at the Bayerwerk, 51368 Leverkusen, Germany, as well as at the headquarters of Bayer AG's U.S. subsidiary, Bayer Corporation, 100 Bayer Road, Pittsburgh, PA 15205-9741.

### **Subsidiary Information**

Not applicable.

## **Item 11. Quantitative and Qualitative Disclosures about Market Risk**

### **Market Risk**

The global nature of our business exposes our operations, financial results and cash flows to a number of risks, including those listed below.

- *Currency exchange rate fluctuations.* We are exposed to fluctuations between the euro and other major world currencies. The majority of our currency fluctuation risk is between the euro and the U.S. dollar. In addition, we are exposed to fluctuations between the euro and the Japanese Yen and fluctuations between the euro and the British pound.
- *Interest rate fluctuations.* We are exposed to changes in interest rates. Our primary interest rate exposure is to fluctuations in short-term U.S. interest rates, especially commercial paper market rates.
- *Credit risk.* We are exposed to credit risk with respect to the counterparties in our transactions, and
- *Raw material price fluctuations.* We are exposed to possible increases in raw material prices. We may not be able to pass any such increases on to our customers.

Any of these risks could harm our operating results and financial condition. These risks are similar to the risks to which we were exposed in the prior year.

From time to time, we enter into hedging arrangements to mitigate our exposure to currency and interest risks. Because we believe that the limited liquidity of hedges against changes in raw materials prices makes these hedges unreasonably expensive, we have used them in the past only to a limited extent. If increasing liquidity and lower fees render these hedging arrangements less costly, we would consider using them more often.

Our primary tools for hedging risks are over-the-counter derivative instruments, particularly forward foreign exchange contracts, option contracts, interest rate swaps, and interest and principal currency swaps. As a matter of policy, we enter into these transactions only with counterparties of high credit standing. We have established uniform guidelines and internal controls for the use of derivatives. We use these instruments only to hedge risks arising from our business operations and from related investments and financing transactions. We do not use derivatives for trading or other speculative purposes. In 2000, we began to manage foreign currency risks on anticipated or pending transactions.

### ***Sensitivity Analysis***

The sensitivity analyses included in the risk sections below present the hypothetical loss in pre-tax income, cash flows or fair value of the financial instruments and derivative financial instruments that we held as of December 31, 2000, and were subject to changes in foreign exchange rates and interest rates. The range of sensitivities that we chose for these analyses reflects our view of changes reasonably possible over a one-year period.

### ***Interest Rate Risk***

Interest rate risk is the possibility that the total return of a financial instrument will change due to movements in market rates of interest. This risk primarily affects receivables and payables with maturities of more than one year. Items with these long maturities are not of material significance to our operations, but are relevant to our investments and financial obligations.

We sometimes make loans to employees. Although a small proportion of these loans are interest-free, they generally bear interest at market-oriented, fixed rates. More than three quarters of our loans to employees have terms of over five years. Because their rates are fixed, these loans are exposed to interest rate fluctuation risk. We do not make these loans for financial purposes, however, and therefore do not hedge their interest rate risk.

### *Derivative financial instruments*

Derivative financial instruments are our main method of interest rate hedging. We use interest rate swaps to convert a small portion of our floating rate investments into, in effect, fixed rate investments. The derivatives we use to hedge interest rate risk are primarily over-the-counter instruments, particularly forward rate agreements option and future contracts, interest rate swaps, and interest and principal currency swaps.

The “notional amount” of these derivatives is the total nominal value of the underlying transactions. The “fair value” of these derivatives is their repurchase value, based on quoted prices or determined by standard methods, as of a given closing date. The table below shows the notional amount and fair value of the interest rate derivatives we held as of December 31, 2000; the fair values quoted disregard any opposite movements in the values of the underlying transactions.

	<u>Notional amount</u>		<u>Fair value</u>	
	<u>December 31,</u>			
	<u>2000</u>	<u>1999</u>	<u>2000</u>	<u>1999</u>
	<u>(euros in millions)</u>			
Interest rate hedging instruments . . . . .	3,495	2,664	(133)	(49)

We generally offset gains and losses from changes in fair values against corresponding losses and gains from the underlying transactions or operating activities.

At December 31, 2000, the notional amount of our short-term interest rate hedging contracts (including interest and principal currency swaps) totaled €0.3 billion (1999: €1.3 billion); those maturing after more than one year totaled €3.2 billion (1999: €1.4 billion).

### *Sensitivity Analysis*

An estimated hypothetical negative effect of 100 basis points, or one percent per year, in interest rates would result in an increase in interest cost per year of approximately €40 million based on our debt position at December 31, 2000.

### *Currency Risk*

Because we conduct our operations in many currencies, we face a variety of risks associated with fluctuations in the relative values of these currencies. Upon the introduction of the euro on January 1, 1999, however, the relative values between the “legacy” currencies of the EU member states participating in the third stage of European Monetary Union were irrevocably fixed. Although these legacy currencies are scheduled to remain in circulation until July 2002, we no longer face currency-related risks in relation to member currencies of the Euro Zone.

### *Transaction Risk*

We face transaction risk when our businesses generate revenue in one currency but incur costs relating to that revenue in a different currency. Because we enter into foreign exchange transactions for a significant portion of our contracted and forecasted operational foreign exchange exposures, we believe that a significant increase or decrease in the exchange rate of the euro relative to other major world currencies would not, in the short term, materially affect our cash flows. Over time, however, to the extent that we cannot reflect these exchange rate movements in the pricing of our products in local currency, they could harm our cash flows. In general, appreciation of the euro in relation to another currency has an adverse effect on our reported revenues and results, and depreciation of the euro has a positive effect as long as prices remain unchanged.

### *Translation Risk*

Many of the companies of the Bayer Group are located outside the euro zone. Because the euro is our financial reporting currency, we translate the income statements of these subsidiaries into euro for inclusion in our consolidated financial statements. Period-to-period changes in the average exchange rate for a particular

country's currency can significantly affect the translation into euro of both revenues and operating income denominated in that currency. Unlike the effect of exchange rate fluctuations on transaction exposure, the effect of exchange rate translation exposure does not affect our local currency cash flows. See Note 38 to the consolidated financial statements.

Outside the euro zone, we hold significant assets, liabilities and operations denominated in local currencies, most importantly the U.S. dollar, the British pound sterling and the Japanese yen. Although we regularly assess and evaluate the long-term currency risk inherent in these investments, we generally undertake foreign exchange transactions addressing this type of risk only when we are considering withdrawal from a specific venture and repatriating the funds that our withdrawal generates. However, we reflect effects from currency fluctuations on the translation of net asset amounts into euro in our equity position.

#### *Derivative financial instruments*

To mitigate the impact of currency exchange fluctuations, we regularly assess our exposure to currency risks and hedge a portion of those risks with derivative financial instruments. Our Corporate Treasury department has central responsibility for managing our currency exposures and using currency derivatives.

We relate the maturity dates of hedging contracts to the anticipated cash flows of the Bayer Group. Our policy is to use a mixture of instruments, basing the specific mix at any time on our technical and fundamental analysis of market conditions.

The table below shows the notional amounts and fair values of the currency derivatives we held as of December 31, 2000:

	<u>Notional amount</u>		<u>Fair value</u>	
	<u>December 31,</u>			
	<u>2000</u>	<u>1999</u>	<u>2000</u>	<u>1999</u>
	(euros in millions)			
Forward exchange contracts and currency swaps . . . . .	3,415	2,337	133	(85)
Currency options . . . . .	87	62	1	(1)

At December 31, 2000, we estimated that our aggregate annual direct transaction risk from sales and purchases in foreign currencies was approximately €2.9 billion, which consisted primarily of U.S. dollars (\$1.8 billion), Japanese yen (¥70 billion) and British pounds sterling (£0.1 billion). We do not anticipate a significant change in these levels of risk for 2001.

The following table shows the effective exchange rates (including hedging cost and premium) between the euro and the major world currencies with respect to which we contracted hedging transactions, compared with the market average rates for these currencies for 2000 and 1999:

<u>Currency vs. euro</u>	<u>2000</u>				<u>1999</u>	
	<u>Effective</u>	<u>% Change vs. 1999</u>	<u>Market Average</u>	<u>% Change vs. 1999</u>	<u>Effective</u>	<u>Market Average</u>
U.S. dollar . . . . .	0.9359	14.0	0.9238	13.3	1.0882	1.0658
Japanese yen . . . . .	99.31	22.9	99.51	18.0	128.75	121.32
British pound sterling . . . . .	0.6108	8.8	0.6096	7.5	0.6696	0.6587

#### *Sensitivity Analysis*

Applying a hypothetical adverse change of 10 percent in foreign currency exchange rates, we estimate the hypothetical loss in cash flows of derivative and non-derivative financial instruments and foreign currency denominated balance sheet positions at December 31, 2000 to be approximately €120 million.

### ***Credit Risk***

Credit risk is the possibility that the value of our assets may become impaired if counterparties cannot meet their obligations in transactions involving financial instruments. Since we do not conclude master netting arrangements with our customers, the total of the amounts recognized in assets represents our maximum exposure to credit risk.

### ***Raw Materials and Commodity Price Risks***

We operate in markets in which economic cyclicality often affects raw material and product prices. Fluctuations in prices of raw materials and commodities affect some of our businesses. In order to secure our supply of raw materials, we are party to long-term supply contracts, buying additional quantities on the spot markets as needed. The most important of our raw materials affected by price fluctuations are:

- Propylene oxide;
- Styrene;
- 1.3-butadiene;
- Phenol;
- Benzene;
- ACN;
- Toluene; and
- Cyclohexane

These products are derived from petroleum, therefore their prices affect the market price of petroleum. We expect that increases in market price of petroleum in 2001 could adversely affect the gross margins of some of our business segments.

We typically use the following measures to avoid and manage pricing risk in purchasing raw materials:

- Coverage of recurrent requirements with long-term contracts to reduce the price volatility of purchases on the spot markets.
- Incorporating pricing formulas linked to economic indices and pre-products into our contracts, rather than using published prices.

We did not hold any significant market risk sensitive commodity instruments at December 31, 2000.

## Item 12. Description of Securities Other Than Equity Securities

### Debt Securities

As of December 31, 2000 the following debt securities, issued by our wholly-owned subsidiaries, were outstanding:

<u>Issuer(1)</u>	<u>Security</u>	<u>Currency</u>	<u>Amount</u> (in millions)	<u>Interest Rate</u> (%)	<u>Term</u>
Bayer Capital Corp. B.V., Netherlands . . . . .	Bonds with warrants attached(2)	Swiss francs	250	2.5	2002
Bayer Corp. . . . .	Notes	U.S. dollar	400	6.5	2002
Bayer Corp. . . . .	Notes	U.S. dollar	200	7.125	2015
Bayer Corp. . . . .	Notes	U.S. dollar	250	6.75	2001
Bayer Corp. . . . .	Bonds	Swiss francs	200	Floating(3)	2002
Bayer Corp. . . . .	Revenue Bonds	U.S. dollar	20.6	3.5	2009
Bayer Corp. . . . .	Revenue Bonds	U.S. dollar	25	4.0	2027
Bayer Corp. . . . .	Notes	U.S. dollar	350	6.65	2028
Bayer Corp. . . . .	Bonds	U.S. dollar	250	6.2(4)	2028
Bayer Ltd., Japan . . . . .	Bonds	Swiss francs	400	3.75	2005
Bayer AG(5) . . . . .	European Medium-Term Notes	various	363(6)	—	—

- (1) Bayer AG guarantees the principal amount and interest payments of the debt securities issued by Bayer Capital Corp. B.V. and Bayer Ltd. described in the table above. Bayer AG and Bayer Corporation have entered into support agreements with respect to the debt securities issued by Bayer Corporation. Under these agreements, Bayer Corporation can obtain funds from Bayer AG to make payments on these securities if unable to make the payments itself.
- (2) The warrants entitling bondholders to exchange these bonds for shares of Bayer AG expired on August 28, 1997.
- (3) At December 31, 2000, these bonds bore interest at 6.56%.
- (4) This interest rate will be reset after February 15, 2008.
- (5) Under our European MTN program, Bayer AG as well as Bayer Corporation, Bayer Capital Corp. B.V. and Bayer Ltd. (Japan) can issue a variety of debt securities in all major currencies.
- (6) The figure listed in the table above is the principal amount of securities issued under our European MTN program outstanding at December 31, 2000. In October 2001 we filed a registration statement with the Luxembourg exchange in connection with the increase of the maximum outstanding principal amount under this program from €2 billion to €8 billion. Under this program, Bayer AG and the three subsidiaries named in Note 5 may issue debt securities in tranches up to a maximum of €8 billion in principal amount outstanding (or its equivalent in other currencies). To date, there have been no additional debt securities issued under this program.

### Warrants and Rights

For a description of the option and stock participation plans that we have established for management and employees, see Item 6, *Directors, Senior Management and Employees — Compensation — Employee Option Plans*. There are otherwise no currently outstanding warrants, rights or other securities convertible into or exchangeable for shares of Bayer AG.

### Other Securities

None.

## **American Depositary Shares**

Bayer AG, The Bank of New York, as Depositary, and the registered holders of American Depositary Receipts, or ADRs, and the owners of a beneficial interest in book-entry ADRs, will enter into a Deposit Agreement under which the ADSs are to be issued. The following section summarizes the material terms of the Deposit Agreement. The following is only a summary and does not purport to be complete and is subject to and qualified in its entirety by reference to the Deposit Agreement, including the form of ADRs. Terms used in this summary and not otherwise defined will have the meanings provided for in the Deposit Agreement. The following is a summary of the agreement. Because it is a summary, it does not contain all the information that may be important to you. For more complete information, you should read the entire agreement and the ADR. Copies of these documents are available for inspection at the Corporate Trust Office of The Bank of New York, 101 Barclay Street, New York, NY 10286 (temporarily located at One Wall Street, New York, New York 10286).

### ***American Depositary Receipts***

The Bank of New York will issue the ADSs. The ownership interest in each share will be represented by one ADS. The shares (or the right to receive shares) will be deposited by Bayer AG with Dresdner Bank AG, its Custodian in Germany. Each ADS will also represent securities, cash or other property deposited with The Bank of New York but not distributed to ADR holders. The Deposit Agreement refers to the deposited shares together with these other securities, cash or property as “deposited securities”. The principal executive office of the Depositary is located at One Wall Street, New York, NY 10286.

You may hold ADRs either directly or indirectly through your broker or other financial institution. If you hold ADRs directly, you are an ADR holder. This description assumes you hold your ADRs directly. If you hold the ADRs indirectly, you must rely on the procedures of your broker or other financial institution to assert the rights of ADR holders described in this section. You should consult with your broker or financial institution to find out what those procedures are.

Because The Bank of New York will actually hold the shares, you must rely on it to exercise the rights of a shareholder. The obligations of Bayer AG and The Bank of New York are set out in a deposit agreement among Bayer AG, The Bank of New York and you, as an ADR holder. The agreement and the ADRs are generally governed by New York law.

### ***Share Dividends And Other Distributions***

The Bank of New York has agreed to pay to you the cash dividends or other distributions it or the custodian receives on shares or other deposited securities after deducting its fees and expenses. You will receive these distributions in proportion to the number of shares your ADRs represent.

*Cash.* The Bank of New York will convert any cash dividend or other cash distribution Bayer AG pays on the shares into U.S. dollars, if it can do so on a reasonable basis and can transfer the U.S. dollars to the United States. If that is not possible or if any approval from any government is needed and can not be obtained, the agreement allows The Bank of New York to distribute the foreign currency only to those ADR holders to whom it is possible to do so. It will hold the foreign currency it cannot convert for the account of the ADR holders who have not been paid. It will not invest the foreign currency and it will not be liable for the interest.

Before making a distribution, any withholding taxes that must be paid under German law will be deducted. See Item 10, *Additional Information — Taxation — Taxation of Dividends*. The Bank of New York will distribute only whole U.S. dollars and cents and will round fractional cents to the nearest whole cent. *If the exchange rates fluctuate during a time when The Bank of New York cannot convert the foreign currency, you may lose some or all of the value of the distribution.*

*Shares.* The Bank of New York may distribute new ADRs representing any shares Bayer AG may distribute as a dividend or free distribution, if Bayer AG furnishes it promptly with satisfactory evidence that it is legal to do so. The Bank of New York will only distribute whole ADRs. It will sell shares which would require it to use a fractional ADR and distribute the net proceeds in the same way as it does with cash. If The Bank of New York does not distribute additional ADRs, each ADR will also represent the new shares.

*Rights to receive additional shares.* If Bayer AG offers holders of its ordinary shares any rights to subscribe for additional shares or any other rights, The Bank of New York may, after consultation to the extent practicable with Bayer AG, make these rights available to you. Bayer AG must first instruct The Bank of New York to do so and furnish it with satisfactory evidence that it is legal to do so. If Bayer AG does not furnish this evidence and/or give these instructions, and The Bank of New York decides it is practical to sell the rights, The Bank of New York will sell the rights and distribute the proceeds, in the same way as it does with cash. The Bank of New York may allow rights that are not distributed or sold to lapse. In that case, you will receive no value for them.

If The Bank of New York makes rights available to you, upon instruction from you, it will exercise the rights and purchase the shares on your behalf. The Bank of New York will then deposit the shares and issue ADSs to you. It will only exercise rights if you pay it the exercise price and any other charges the rights require you to pay.

U.S. securities laws may restrict the sale, deposit, cancellation and transfer of the ADRs issued after exercise of rights. For example, you may not be able to trade the ADRs freely in the United States. In this case, The Bank of New York may issue the ADRs under a separate restricted deposit agreement which will contain the same provisions as the agreement, except for the changes needed to put the restrictions in place.

*Other Distributions.* The Bank of New York will send to you anything else Bayer AG distributes on deposited securities by any means it thinks is legal and fair, as promptly as practicable and after consultation, to the extent practicable, with Bayer AG. If it cannot make the distribution in that way, The Bank of New York has a choice. It may decide to sell what Bayer AG distributed and distribute the net proceeds in the same way as it does with cash or it may decide to hold what Bayer AG distributed, in which case the ADSs will also represent the newly distributed property.

The Bank of New York is not responsible if it decides that it is unlawful or impractical to make a distribution available to any ADR holders. Bayer AG has no obligation to register ADRs, shares, rights or other securities under the Securities Act. Bayer AG also has no obligation to take any other action to permit the distribution of ADSs, shares, rights or anything else to ADR holders. This means that you may not receive the distribution Bayer AG makes on its shares or any value for them if it is illegal or impractical for Bayer AG to make them available to you.

### ***Deposit, Withdrawal and Cancellation***

The Bank of New York will issue ADRs if you or your broker deposit shares or evidence of rights to receive shares with the Custodian. Upon payment of its fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, The Bank of New York will register the appropriate number of ADRs in the names you request and will deliver the ADRs at its Corporate Trust Office to the persons you request.

You may turn in your ADRs at The Bank of New York's Corporate Trust Office. Upon payment of its fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, The Bank of New York will deliver (1) the underlying shares to an account designated by you and (2) any other deposited securities underlying the ADR at the office of the Custodian. Or, at your request, risk and expense, The Bank of New York will deliver the deposited securities at its Corporate Trust Office.

### ***Voting Rights***

Upon receipt of notice from Bayer AG, The Bank of New York will notify you of the upcoming vote and arrange to deliver Bayer AG's voting materials to you. The materials will (1) describe the matters to be voted on and (2) explain how you, on a certain date, may instruct The Bank of New York to vote the shares or other deposited securities underlying your ADRs as you direct. For instructions to be valid, The Bank of New York must receive them on or before the date specified. The Bank of New York will try, as far as practical, subject to German law and the provisions of Bayer AG's Articles of Association, to vote or to have its agents vote the shares or other deposited securities as you instruct. The Bank of New York will only vote or attempt to vote as you instruct. However, if The Bank of New York does not receive your voting instructions, it will give a proxy to vote your shares to a designated representative of Bayer AG.

Bayer AG cannot assure you that you will receive the voting materials in time to ensure that you can instruct The Bank of New York to vote your shares. In addition, The Bank of New York and its agents are not responsible for failing to carry out voting instructions or for the manner of carrying out voting instructions. This means that you may not be able to exercise your right to vote and there may be nothing you can do if your shares are not voted as you requested.

***Fees and Expenses***

ADR holders must pay:

\$5.00 (or less) per 100 ADSs

\$.02 (or less) per ADS

Registration or Transfer Fees

Expenses of The Bank of New York

Taxes and other governmental charges The Bank of New York or the Custodian have to pay on any ADR or share underlying an ADR, for example, stock transfer taxes, stamp duty or withholding taxes

For:

Each issuance of an ADS, including as a result of a distribution of shares or rights or other property

Each cancellation of an ADS, including if the agreement terminates

Any cash payment

Transfer and registration of shares on the share register of the Foreign Registrar from your name to the name of The Bank of New York or its agent when you deposit or withdraw shares

Conversion of foreign currency to U.S. dollars

Cable, telex and facsimile transmission expenses

As necessary

***Payment of Taxes***

You will be responsible for any taxes or other governmental charges payable on your ADRs or on the deposited securities underlying your ADRs. The Bank of New York may refuse to transfer your ADRs or allow you to withdraw the deposited securities underlying your ADRs until such taxes or other charges are paid. It may apply payments owed to you or sell deposited securities underlying your ADRs to pay any taxes owed and you will remain liable for any deficiency. If it sells deposited securities, it will, if appropriate, reduce the number of ADRs to reflect the sale and pay to you any proceeds, or send to you any property, remaining after it has paid the taxes.

***Reclassifications, Recapitalizations and Mergers***

If Bayer AG:

Changes the nominal or par value of its shares

Reclassifies, splits up or consolidates any of the deposited securities

Distributes securities on the shares that are not distributed to you

Recapitalizes, reorganizes, merges, liquidate, sells all or substantially all of its assets, or takes any similar action

Then:

The cash, shares or other securities received by The Bank of New York will become deposited securities. Each ADR will automatically represent its equal share of the new deposited securities.

The Bank of New York may, and will if Bayer AG asks it to, distribute some or all of the cash, shares or other securities it received. It may also issue new ADRs or ask you to surrender your outstanding ADRs in exchange for new ADRs, identifying the new deposited securities.

### ***Amendment and Termination***

Bayer AG may agree with The Bank of New York to amend the agreement and the ADRs without your consent for any reason. If the amendment adds or increases fees or charges, except for taxes and other governmental charges or registration fees, cable, telex or facsimile transmission costs, delivery costs or other such expenses, or prejudices an important right of ADR holders, it will only become effective 30 days after The Bank of New York notifies you of the amendment. At the time an amendment becomes effective, you are considered, by continuing to hold your ADR, to agree to the amendment and to be bound by the ADRs and the agreement is amended.

The Bank of New York will terminate the agreement at the direction of Bayer AG by mailing notice of termination to registered holders at least 30 days prior to the date fixed for termination in the notice. The Bank of New York may also terminate the agreement if The Bank of New York has told Bayer AG that it would like to resign and Bayer AG has not appointed a new depositary bank within 60 days.

After termination, The Bank of New York and its agents will be required to do only the following under the agreement: (1) collect distributions on the deposited securities and (2) deliver shares and other deposited securities upon cancellation of ADRs. At any time after the expiration of one year after the date of termination, The Bank of New York may sell any remaining deposited securities by public or private sale. After that, The Bank of New York will hold the proceeds of the sale, as well as any other cash it is holding under the agreement for the pro rata benefit of the ADR holders that have not surrendered their ADRs. It will not invest the money and will have no liability for interest. The Bank of New York's only obligations will be to account for the proceeds of the sale and other cash. After termination our only obligations will be with respect to indemnification and to pay certain amounts to The Bank of New York.

### **Limitations on Obligations and Liability to ADR Holders**

The agreement expressly limits Bayer AG's obligations and the obligations of The Bank of New York, and it limits Bayer AG's liability and the liability of The Bank of New York. Bayer AG and The Bank of New York:

- are only obligated to take the actions specifically set forth in the agreement without negligence or bad faith;
- are not liable if either is prevented or delayed by law or circumstances beyond their control from performing their obligations under the agreement;
- are not liable if either exercises discretion permitted under the agreement;
- have no obligation to become involved in a lawsuit or other proceeding related to the ADRs or the agreement on your behalf or on behalf of any other party; and
- may rely upon any documents they believe in good faith to be genuine and to have been signed or presented by the proper party.

In the agreement, Bayer AG and The Bank of New York agree to indemnify each other under certain circumstances.

### **Requirements for Depositary Actions**

Before The Bank of New York will issue or register transfer of an ADR, make a distribution on an ADR, or withdrawal of shares, The Bank of New York may require:

- payment of stock transfer or other taxes or other governmental charges and transfer or registration fees charged by third parties for the transfer of any shares or other deposited securities;
- production of satisfactory proof of the identity and genuineness of any signature or other information it deems necessary; and
- compliance with regulations it may establish, from time to time, consistent with the agreement, including presentation of transfer documents.

The Bank of New York may refuse to deliver, transfer, or register transfers of ADRs generally when the books of The Bank of New York or Bayer AG are closed, or at any time if The Bank of New York or Bayer AG thinks it advisable to do so.

You have the right to cancel your ADRs and withdraw the underlying shares at any time except:

- when temporary delays arise due to closing of the transfer books of The Bank of New York or Bayer AG or the deposit of Shares in connection with voting at a shareholders' meeting, or the payment of dividends;
- when you or other ADR holders seeking to withdraw shares owe money to pay fees, taxes and similar charges; or
- when it is necessary to prohibit withdrawals in order to comply with any laws or governmental regulations that apply to ADRs or to the withdrawal of shares or other deposited securities.

This right of withdrawal may not be limited by any other provision of the agreement.

### ***Pre-Release of ADRs***

In certain circumstances, subject to the provisions of the agreement, The Bank of New York may issue ADRs before deposit of the underlying shares. This is called a pre-release of the ADR. The Bank of New York may also deliver shares upon cancellation of pre-released ADRs (even if the ADRs are cancelled before the pre-release transaction has been closed out). A pre-release is closed out as soon as the underlying shares are delivered to The Bank of New York. The Bank of New York may receive ADRs instead of shares to close out a pre-release. The Bank of New York may pre-release ADRs only under the following conditions: (1) before or at the time of the pre-release, the person to whom the pre-release is being made must represent to The Bank of New York in writing that it or its customer owns the shares or ADRs to be deposited; (2) the pre-release must be fully collateralized with cash or other collateral that The Bank of New York considers appropriate; and (3) The Bank of New York must be able to close out the pre-release on not more than five business days' notice. In addition, The Bank of New York will limit the number of ADRs that may be outstanding at any time as a result of pre-release, although The Bank of New York may disregard the limit from time to time, if it thinks it is appropriate to do so.

## PART II

### Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

### Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

Not applicable.

### Item 15. [Reserved]

### Item 16. [Reserved]

## PART III

### Item 17. Financial Statements

We have responded to Item 18 in lieu of responding to this item.

### Item 18. Financial Statements

See pages F-1 through F-87, incorporated herein by reference.

### Item 19. Exhibits

Index of Exhibits

- |              |   |
|--------------|---|
| Exhibit 1.1  | Articles of Association ( <i>Satzung</i> ) of Bayer AG, as amended to date, in English translation.   |
| Exhibit 2.2  | The total amount of long term debt securities Bayer AG authorized under any instrument does not exceed 10 percent of the total assets of the Company. We agree to furnish the Securities and Exchange Commission, upon its request, a copy of any instrument defining the rights of holders of long-term debt of Bayer AG or its subsidiaries for which consolidated or unconsolidated financial statements are required to be filed.   |
| Exhibit 8.1  | Subsidiaries as of the end of the year covered by this report: See “Organizational Structure” in Item 4, <i>Information on the Company</i> . We agree to furnish to the Securities and Exchange Commission upon request by the Commission a list or diagram of our subsidiaries indicating as to each subsidiary named: (a) its country or other jurisdiction of incorporation or organization, (b) its relationship to Bayer AG, and (c) the percentage of voting securities owned or other basis of control by its immediate parent if any. |
| Exhibit 10.1 | Consent of PwC Deutsche Revision Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Essen, Germany, authorized public accountants.   |

Pursuant to the requirements of Section 12 of the Securities and Exchange Act of 1934, the registrant certifies that it meets all of the requirements for filing on Form 20-F and has duly caused this Form 20-F to be signed on its behalf by the undersigned, thereunto duly authorized.

**BAYER AG**

/s/ WERNER WENNING

Name: Werner Wenning

Title: Member of the Board of Management and  
Chief Financial Officer

/s/ ROLAND HARTWIG

Name: Dr. Roland Hartwig

Title: General Counsel

Date: January 15, 2002

## BAYER GROUP

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## Independent Auditors' Report

To the Board of Directors  
and Stockholders of Bayer AG

We have audited the accompanying consolidated balance sheet of Bayer AG and its subsidiaries (the "Group") as of December 31, 2000 and 1999, and the related consolidated statements of income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2000. These financial statements are the responsibility of the Group's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with International Standards on Auditing and auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Bayer AG at December 31, 2000 and 1999, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2000 in conformity with International Accounting Standards.

International Accounting Standards vary in certain significant respects from accounting principles generally accepted in the United States. The application of the latter would have affected the determination of consolidated net income for the years ended December 31, 2000 and 1999, and the determination of consolidated stockholders' equity as of December 31, 2000 and 1999, to the extent summarized in Note 44 to the consolidated financial statements.

Essen, Germany  
February 28, 2001  
(December 19, 2001, as to paragraph 3 of Note 6 and Note 44)

PwC Deutsche Revision  
Aktiengesellschaft  
Wirtschaftsprüfungsgesellschaft

/s/ ALBRECHT

\_\_\_\_\_  
P. Albrecht  
Wirtschaftsprüfer

/s/ SCHILLING

\_\_\_\_\_  
J. Schilling  
Wirtschaftsprüfer

## Bayer Group Consolidated Statements of Income

	Note	2000	1999	1998
			(€ million)	
<b>Net sales</b> .....	[1]	30,971	27,320	28,062
<i>Net sales from discontinuing operations</i> .....	[6]	(1,491)	(2,973)	(5,586)
Net sales from continuing operations .....		29,480	24,347	22,476
Cost of goods sold .....		<u>(15,566)</u>	<u>(12,910)</u>	<u>(11,811)</u>
<b>Gross Profit</b> .....		<u>13,914</u>	<u>11,437</u>	<u>10,665</u>
Selling expenses .....	[2]	(6,834)	(5,590)	(5,250)
Research and development expenses .....	[3]	(2,373)	(2,131)	(1,801)
General administration expenses .....		(924)	(754)	(745)
Other operating income .....	[4]	429	676	676
Other operating expenses .....	[5]	<u>(1,080)</u>	<u>(1,459)</u>	<u>(793)</u>
<b>Operating result from continuing operations</b> .....		<u>3,132</u>	<u>2,179</u>	<u>2,752</u>
<i>Operating result from discontinuing operations</i> .....	[6]	155	148	403
<i>Income from the Agfa divestiture</i> .....			1,030*	
<b>Operating result</b> .....	[7]	<u>3,287</u>	<u>3,357</u>	<u>3,155</u>
Income (Expenses) from investments in affiliated companies — net .....	[8]	283	(31)	21
Interest expense — net .....	[9]	(311)	(196)	(189)
Other non-operating expenses — net .....	[10]	<u>(269)</u>	<u>(294)</u>	<u>(259)</u>
<b>Non-operating result</b> .....		<u>(297)</u>	<u>(521)</u>	<u>(427)</u>
<b>Income before income taxes</b> .....		<u>2,990</u>	<u>2,836</u>	<u>2,728</u>
Income taxes .....	[11]	<u>(1,148)</u>	<u>(818)</u>	<u>(1,113)</u>
<b>Income after taxes</b> .....		<u>1,842</u>	<u>2,018</u>	<u>1,615</u>
Minority stockholders' interest .....	[13]	<u>(26)</u>	<u>(16)</u>	<u>(1)</u>
<b>Net income</b> .....		<u>1,816</u>	<u>2,002</u>	<u>1,614</u>
<b>Basic and diluted earnings per share (€)</b> .....	[14]	<u>2.49</u>	<u>2.74</u>	<u>2.21</u>

\* The income from the sale of Agfa-Gevaert shares was tax-free.

## Bayer Group Consolidated Balance Sheets

	<u>Note</u>	<u>Dec. 31, 2000</u>	<u>Dec. 31, 1999</u>
		(€ million)	
<b>ASSETS</b>			
<b>Noncurrent assets</b>			
Intangible assets .....	[18]	4,843	2,213
Property, plant and equipment .....	[19]	13,345	11,986
Investments .....	[20]	2,156	1,415
		<u>20,344</u>	<u>15,614</u>
<b>Current assets</b>			
Inventories .....	[21]	6,095	4,992
Receivables and other assets			
Trade accounts receivable .....	[22]	6,244	5,333
Other receivables and other assets .....	[23]	2,414	1,576
		<u>8,658</u>	<u>6,909</u>
<b>Liquid assets</b> .....	[24]		
Marketable securities and other instruments .....		213	328
Cash and cash equivalents .....		491	2,812
		<u>704</u>	<u>3,140</u>
		<u>15,457</u>	<u>15,041</u>
<b>Deferred taxes</b> .....	[11]	413	407
<b>Deferred charges</b> .....	[25]	237	217
		<u>36,451</u>	<u>31,279</u>
<i>of which discontinuing operations</i> .....	[35]	1,157	950
<b>STOCKHOLDERS' EQUITY AND LIABILITIES</b>			
<b>Stockholders' equity</b>			
Capital stock of Bayer AG .....		1,870	1,870
Capital reserves of Bayer AG .....		2,942	2,942
Retained earnings .....		9,047	7,965
Net income .....		1,816	2,002
Translation differences .....		465	227
	[26]	<u>16,140</u>	<u>15,006</u>
<b>Minority stockholders' interest</b> .....	[27]	237	176
<b>Liabilities</b>			
<b>Long-term liabilities</b>			
Long-term financial obligations .....	[30]	2,803	2,359
Miscellaneous long-term liabilities .....	[32]	196	232
Provisions for pensions and other post-employment benefits .....	[28]	4,254	4,178
Other long-term provisions .....	[29]	1,208	1,192
		<u>8,461</u>	<u>7,961</u>
<b>Short-term liabilities</b>			
Short-term financial obligations .....	[30]	3,862	2,107
Trade accounts payable .....	[31]	2,016	1,556
Miscellaneous short-term liabilities .....	[32]	2,274	1,801
Short-term provisions .....	[29]	1,701	1,344
		<u>9,853</u>	<u>6,808</u>
		<u>18,314</u>	<u>14,769</u>
<i>of which discontinuing operations</i> .....	[35]	574	476
<b>Deferred taxes</b> .....	[11]	1,595	1,157
<b>Deferred income</b> .....	[34]	165	171
		<u>36,451</u>	<u>31,279</u>

## Bayer Group Consolidated Statements of Changes in Stockholders' Equity

	<u>Number of shares</u>	<u>Capital stock of Bayer AG</u>	<u>Capital reserves of Bayer AG</u>	<u>Retained earnings</u>	<u>Net Income</u>	<u>Translation differences</u>	<u>Total Stockholders' equity</u>
			(€ million, except share data)				
<b>Dec. 31, 1997</b> .....	730,341,920	1,867	2,945	6,277	1,504	(584)	12,009
<b>Changes in stockholders' equity resulting from capital contributions and dividend payments</b>							
Capital contributions							
Dividend payments .....					(710)		(710)
					(710)		(710)
<b>Other changes in stockholders' equity not recognized in income</b>							
Exchange differences .....						(395)	(395)
Other differences .....				50			50
				50		(395)	(345)
<b>Changes in stockholders' equity recognized in income</b>							
Allocation to retained earnings ...				794	(794)		0
Income after taxes for 1998 .....					1,614		1,614
<b>Dec. 31, 1998</b> .....	730,341,920	1,867	2,945	7,121	1,614	(979)	12,568
<b>Changes in stockholders' equity resulting from capital contributions and dividend payments</b>							
Capital contributions .....		3	(3)				0
Dividend payments .....					(747)		(747)
		3	(3)		(747)		(747)
<b>Other changes in stockholders' equity not recognized in income</b>							
Exchange differences .....						1,206	1,206
Other differences .....				(23)			(23)
				(23)		1,206	1,183
<b>Changes in stockholders' equity recognized in income</b>							
Allocation to retained earnings ...				867	(867)		0
Income after taxes for 1999 .....					2,002		2,002
<b>Dec. 31, 1999</b> .....	730,341,920	1,870	2,942	7,965	2,002	227	15,006
<b>Changes in stockholders' equity resulting from capital contributions and dividend payments</b>							
Capital contributions							
Dividend payments .....					(949)		(949)
					(949)		(949)
<b>Other changes in stockholders' equity not recognized in income</b>							
Exchange differences .....						238	238
Other differences .....				29			29
				29		238	267
<b>Changes in stockholders' equity recognized in income</b>							
Allocation to retained earnings ...				1,053	(1,053)		0
Income after taxes for 2000 .....					1,816		1,816
<b>Dec. 31, 2000</b> .....	<u>730,341,920</u>	<u>1,870</u>	<u>2,942</u>	<u>9,047</u>	<u>1,816</u>	<u>465</u>	<u>16,140</u>

## Bayer Group Consolidated Statements of Cash Flows

	Note	2000	1999	1998
			(€ million)	
Operating result . . . . .		3,287	3,357	3,155
Income taxes currently payable . . . . .		(873)	(834)	(942)
Depreciation and amortization . . . . .		2,139	1,811	1,543
Change in long-term provisions . . . . .		(316)	(167)	(335)
Gains on retirements of noncurrent assets . . . . .		(73)	(975)	(106)
<b>Gross cash provided by operating activities</b> . . . . .		<b>4,164</b>	<b>3,192</b>	<b>3,315</b>
(Increase) Decrease in inventories . . . . .		(750)	134	(376)
(Increase) in trade accounts receivable . . . . .		(548)	(459)	(135)
Increase (Decrease) in trade accounts payable . . . . .		351	(11)	51
Changes in other working capital . . . . .		(126)	337	(86)
<b>Net cash provided by operating activities</b> . . . . .	[39]	<b>3,091</b>	<b>3,193</b>	<b>2,769</b>
<i>of which discontinuing operations</i> . . . . .	[42]	218	276	602
Cash outflows for additions to property, plant and equipment . . . . .		(2,647)	(2,632)	(2,703)
Cash inflows from sales of property, plant and equipment . . . . .		322	63	536
Cash inflows and outflows related to investments . . . . .		(45)	2,632	(25)
Cash outflows for acquisitions . . . . .		(4,125)	(347)	(1,444)
Interest and dividends received . . . . .		191	146	247
Cash inflows from marketable securities . . . . .		115	209	197
<b>Net cash provided by (used in) investing activities</b> . . . . .	[40]	<b>(6,189)</b>	<b>71</b>	<b>(3,192)</b>
<i>of which discontinuing operations</i> . . . . .	[42]	(181)	2,473	(368)
Capital contributions . . . . .		2	10	0
Bayer AG dividend and dividend payments to minority stockholders . . . . .		(953)	(770)	(712)
Issuances of debt . . . . .		3,952	1,222	1,697
Retirements of debt . . . . .		(1,893)	(1,831)	(822)
Interest paid . . . . .		(336)	(300)	(285)
<b>Net cash provided by (used in) financing activities</b> . . . . .	[41]	<b>772</b>	<b>(1,669)</b>	<b>(122)</b>
<i>of which discontinuing operations</i> . . . . .	[42]	18	(29)	34
<b>Change in cash and cash equivalents due to business activities</b> . . . . .		<b>(2,326)</b>	<b>1,595</b>	<b>(545)</b>
<b>Cash and cash equivalents at beginning of year</b> . . . . .		<b>2,812</b>	<b>1,184</b>	<b>1,746</b>
Change in cash and cash equivalents due to changes in scope of consolidation . . . . .		(3)	19	(18)
Change in cash and cash equivalents due to exchange rate movements . . . . .		8	14	1
<b>Cash and cash equivalents at end of year</b> . . . . .	[43]	<b>491</b>	<b>2,812</b>	<b>1,184</b>
Marketable securities and other instruments . . . . .		213	328	537
<b>Liquid assets as per balance sheets</b> . . . . .		<b>704</b>	<b>3,140</b>	<b>1,721</b>

## Notes to the Consolidated Financial Statements of the Bayer Group

### Accounting policies

The consolidated financial statements of the Bayer Group are prepared — pursuant to Article 292a of the German Commercial Code — in accordance with the rules of the International Accounting Standards Committee (IASB), London, in effect at the closing date. They comply with the European Union's guidelines on consolidation of financial statements (Directive 83/349/EEC).

The financial statements of the consolidated companies are prepared according to uniform recognition and valuation principles. Valuation adjustments made for tax reasons are not reflected in the Group statements. The individual companies' statements are prepared as of the closing date for the Group statements.

The Group accrues for contingencies in accordance with the criteria of IAS 37 when available information indicates that an asset has been impaired or a liability has been incurred and the amount of loss can be reasonably estimated.

Certain income statement and balance sheet items are combined for the sake of clarity, as explained in the Notes. Income received such as royalties, rental income, interest income or dividend income is recognized on an accrual basis. A distinction is made in the balance sheet between long-term and short-term liabilities in accordance with IAS 1 (Presentation of Financial Statements). Liabilities are stated as short-term if they mature within one year.

Changes in recognition and valuation principles are explained in the Notes. The previous years' figures are restated accordingly. Accounting policies for individual categories of items in the income statement and balance sheet are included in the relevant notes.

In a few instances, estimates and assumptions have to be made. These affect the classification and valuation of assets, liabilities, income, expenses and contingent liabilities. The actual values may vary from the estimates.

### Effect of New Accounting Pronouncements

Bayer's 2000 financial statements reflect the requirements of the following new or revised International Accounting Standards (IAS) and SICs that the Group implemented in 2000:

IAS 10 (Revised 1999)	Events after the Balance Sheet Date
IAS 22 (Revised 1998)	Business Combinations
IAS 36	Impairment of Assets
IAS 37	Provisions, Contingent Liabilities and Contingent Assets
IAS 38	Intangible Assets
SIC 12	Consolidation — Special Purpose Entities (IAS 27)
SIC 18	Consistency — Alternative Methods (adopted in advance of the effective date)
SIC 20	Equity Accounting Method — Recognition of Losses (IAS 28)
SIC 22	Business Combinations — Subsequent Adjustment of Fair Values and Goodwill Initially Reported (IAS 22)
SIC 23	Property, Plant and Equipment — Major Inspections or Overhaul Costs
SIC 24	Earnings per Share — Financial Instruments and other Contracts that may be Settled in Shares
SIC 25	Income Taxes — Changes in the Tax Status of an Enterprise or its Shareholders (IAS 12)

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

The adoption of these standards did not have any significant impact on Bayer's financial position or its results of operations during 2000 or on the comparability of its 2000 and 1999 consolidated financial statements.

The following new or revised accounting standards and interpretations will be implemented in 2001:

IAS 12 (Revised 2000)	Income Taxes
IAS 19 (Revised 2000)	Employee Benefits
IAS 39	Financial Instruments: Recognition and Measurement
IAS 40	Investment Property
SIC 17	Equity — Cost of an Equity Transaction
SIC 19	Reporting Currency — Measurement and Presentation of Financial Statements under IAS 21 and IAS 29

IAS 12 (revised 2000) "Income Taxes", requires that current and deferred income taxes be measured at the tax rate applicable to undistributed earnings. The income tax consequences of dividends should be recognized when the related dividend is recognized in the financial statements. The adoption of IAS 12 (revised 2000) as of January 1, 2001 will not have a material effect on Bayer's consolidated financial statements.

IAS 19 (revised 2000) "Employee Benefits" requires that plan assets should include certain assets for insurance policies that satisfy the same conditions as other plan assets and that have economic effects similar to those other plan assets. Bayer does not expect that this revised standard will have a material impact on its consolidated financial statements. The adoption of IAS 19 (revised 2000) as of 1 January 2001 will not have a material effect on Bayer's consolidated financial statements.

IAS 39 "Financial Instruments: Recognition and Measurement" requires that all financial assets and financial liabilities be recognized on the balance sheet, including derivatives. This involves recording in the balance sheet the unrealized gains on the available-for-sale and derivative portfolios. As of the adoption of IAS 39 on January 1, 2001, the after tax amount added to stockholders' equity was €0.9 billion. IAS 39 is not expected to have a material impact on the consolidated statements of income.

IAS 40 "Investment Property" prescribes the accounting treatment for investment property and related disclosure requirements. The Group expects that the adoption of IAS 40 will not have a material impact on its consolidated financial statements.

SIC 17 "Equity — Cost of an Equity Transaction" requires that we account for transaction costs of an equity transaction as a deduction from equity, net of any related income tax benefit, unless the transaction fails to be completed, in which case it should be expensed. The adoption of SIC 17 as of January 1, 2001 did not have a material effect on Bayer's consolidated financial statements.

SIC 19 "Reporting Currency — Measurement and Presentation of Financial Statements under IAS 21 and IAS 29" provides additional guidance on determining the reporting currencies of foreign subsidiaries. The adoption of SIC 19 as of January 1, 2001 did not have a material effect on our consolidated financial statements.

### Companies consolidated

The financial statements of the Bayer Group as of December 31, 2000 include Bayer AG and 37 German and 191 foreign consolidated subsidiaries in which Bayer AG, directly or indirectly, has a majority of the voting rights. The number of companies consolidated has risen by 41 from the previous year. Excluded from consolidation are 93 subsidiaries that in aggregate are immaterial to the net worth, financial position and earnings of the Bayer Group; they account for less than 1 percent of Group sales.

We have included 41 joint ventures — one fewer on aggregate than in the previous year — by proportionate consolidation in compliance with IAS 31 (Financial Reporting of Interests in Joint Ventures). The following

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

summarized balance sheet and income statement information relating to the Group's interest in joint ventures is presented prior to adjustments made on consolidation:

	<u>€ million</u>
Noncurrent assets .....	547
Current assets .....	815
Pension provisions .....	(81)
Other provisions .....	(76)
Financial obligations .....	(187)
Remaining liabilities .....	<u>(408)</u>
<b>Net assets</b> .....	<u>610</u>
Income .....	1,989
Expenses .....	<u>1,876</u>
<b>Income after taxes</b> .....	<u>113</u>

While 14 companies are stated at equity, 59 companies that in aggregate are of minor importance are stated at their accounting values.

Included for the first time are 50 companies, 27 of which belonged to the Sybron group, which we acquired in 2000, and six of which were acquired along with the polyols business of Lyondell. As a consequence of divestiture and mergers the number of consolidated companies was reduced by 10.

### Acquisitions/divestitures

Acquisitions have been accounted for under the purchase method of accounting and accordingly the results of operations of the acquired businesses have been included in the consolidated financial statements since the respective dates of the acquisitions. The purchase prices of the foreign acquisitions are translated at the exchange rates in effect at the respective dates of acquisition. In 2000 a total of €4.2 billion was spent on **acquisitions**. Acquisitions during 2000 were paid in cash and no shares of Bayer AG were issued. These acquisitions resulted in total goodwill of €301 million which is being amortized using the straight-line method over a period not exceeding 20 years.

Effective March 31, 2000 Bayer acquired the polyols business of Lyondell Chemical Company, Houston, Texas, United States. The acquisition comprised U.S. production facilities in Institute and South Charleston, West Virginia and Channelview, Texas; European plants in Rieme, Belgium and Fos-sur-Mer, France; companies in Indonesia, Singapore and Taiwan; and research facilities in Newtown Square, Pennsylvania; South Charleston, West Virginia; Villers St. Paul, France; and Singapore. The total purchase price was €2.6 billion. The net assets acquired consisted of intangible assets (€1,308 million), tangible fixed assets (€466 million), financial assets (€509 million), inventories (€144 million), trade accounts receivable (€134 million), deferred tax assets (€1 million), other assets (€61 million), deferred tax liabilities (€2 million) and other liabilities (€37 million). The acquisition was accounted for under the purchase method of accounting and the related goodwill was €38 million, which is being amortized on a straight-line basis over its economic useful life of 20 years.

The Crop Protection Business Group acquired the FLINT® line of crop fungicides from Novartis effective December 7, 2000. This €880 million acquisition includes global ownership of all associated intellectual property rights, registrations and trademarks, production and formulation know-how and the production facilities in Muttenz, Switzerland, and inventories. At the same time, Bayer acquired the exclusive right to market certain products based on the active ingredient cyproconazole in the European Union. The intangible assets are being amortized over their economic useful life of 12 years.

On October 21, 2000 Bayer Corporation, the U.S. subsidiary of Bayer AG, purchased 99.6 percent of the approximately 5.7 million outstanding shares of U.S. polymers and specialty chemicals producer Sybron

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

Chemicals Inc., Birmingham, New Jersey, at a price of US\$ 35 per share. The total purchase price, including assumption of Sybron's financial liabilities, was approximately €386 million. The acquisition provides Bayer's Coatings and Colorants Business Group and Specialty Products Business Group with access to new technologies and products. The acquired goodwill totaling €248 million is being amortized over an estimated economic life of 15 and 20 years for the Coatings and Colorants Business and the Specialty Products Business, respectively.

Effective November 17, 2000 Bayer subsidiary H.C. Starck GmbH & Co. KG of Goslar, Germany acquired the CSM group of companies, headquartered in Cleveland, Ohio, United States for €146 million. CSM is a manufacturer of molybdenum and tungsten mill products as well as machined components and fabrications made from alloys of other refractory metals.

Our U.S. subsidiary Bayer Corporation acquired major parts of the paper chemicals business — including patents and know-how — of the U.S. specialty chemicals manufacturer Cytec Industries, Inc., West Paterson, New Jersey for €107 million, effective November 1, 2000. The acquired goodwill of €24 million will be amortized over its estimated economic life of 15 years.

On June 1, 2000 the Consumer Care Division of Bayer Corporation purchased the complete RID® line of head lice treatments from Pfizer Inc. The €99 million acquisition includes all the related patents.

Effective January 1, 2000 we acquired for €27 million the remaining 50.1 percent of the shares of Misung Ltd., Pyongtaek, South Korea, which up till that time had been a joint venture with Aventis S.A. Misung formulates and markets a wide range of crop protection products in South Korea. The acquired goodwill of €20 million will be amortized over a five-year period.

On December 15, 2000 Bayer Ltd., Japan, purchased a further 10 percent of the shares of Sumitomo Bayer Urethane Co. Ltd., Japan, a joint venture with Sumitomo Chemicals Co. Ltd., for €7 million, thereby raising Bayer's interest to 60 percent. Prior to acquisition of the additional shares, the company had been proportionately consolidated. As from the date of acquisition the company has been consolidated.

The Consumer Care Business Group strengthened its skin care products business and improved its position in the British market through the acquisition by U.K. subsidiary Bayer plc of the Germoloid® brand effective January 1, 2000. The purchase price paid to GlaxoSmithKline was €11 million. The acquired goodwill of €10 million will be amortized over its estimated economic life of 10 years.

The pro forma impact of the aforementioned acquisitions on revenues and income from the continuing operations for the year ended December 31, 2000 is immaterial.

In 1999 a total of €356 million was spent on acquisitions. These acquisitions have been accounted for under the purchase method and accordingly the results of operations of the acquired businesses have been included in the consolidated financial statements since the respective dates of the acquisitions. These acquisitions were paid in cash and no shares of Bayer AG were issued. The 1999 acquisitions resulted in total goodwill of €219 million which is being amortized using the straight-line method over a period not exceeding 20 years.

On April 1, 1999 Bayer purchased the global polycarbonate and polyester plastic sheet business of the Dutch chemicals group DSM for €172 million. The acquisition comprises two companies — Axxis N.V. in Belgium and Sheffield Plastics Inc. in the United States. These companies are consolidated as of the date of acquisition. The purchase price includes goodwill of €108 million, which is being amortized over its estimated economic life of 10 years.

The assets of the Australian company Laserlite, also a manufacturer of plastic sheet, were acquired on March 15, 1999 for €15 million.

Effective October 31, 1999, our U.S. subsidiary Rhein Chemie Corporation acquired the business and the assets of Elastochem, Inc., one of the leading American suppliers of customized additives and specialties for the rubber industry, for €61 million. The goodwill of €47 million is amortized over its estimated economic life of 10 years.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

In 1999 we concluded a five-year research agreement with LION Bioscience AG of Heidelberg, Germany, with the aim of applying modern genomics and information technologies more efficiently to research and develop innovative drugs and diagnostic markers for the Pharmaceuticals and Diagnostics business groups. As part of this cooperation, Bayer purchased an 11.28 percent interest in LION on August 26, 1999 for €28 million.

On December 17, 1999 we acquired the remaining 33.3 percent of the shares of Bayer Polímeros S.A., Brazil. This manufacturer of acrylonitrile-butadiene-styrene (ABS) plastics is now a wholly owned subsidiary. Under the agreement reached when we first purchased an interest in 1997, the price paid for the remainder of the shares was €19 million. The goodwill of €13 million was written off in 1999 due to a loss of value.

On February 1, 1999, our subsidiary Bayer plc purchased 100 percent of the shares of pbi Home & Garden Limited, United Kingdom, from Sumitomo Corporation of Japan for €13 million. The acquisition of this company, which supplies plant protection products and fertilizers for amateur gardeners, marked our entry into Europe's second largest market for home garden products. The goodwill of €13 million is being amortized over a 10-year period.

Our Diagnostics Business Group acquired the oncology diagnostics business — headquartered in Cambridge, Massachusetts — of OSI Pharmaceuticals, Inc. on December 2, 1999 for €11 million. The acquisition, effected through our U.S. subsidiary Bayer Corporation, comprises mainly patents and know-how in the field of cancer diagnostics.

The pro forma impact of the aforementioned acquisitions on revenues and income from the continuing operations for the year ended December 31, 1999 is immaterial.

Significant **divestitures** were as follows:

Effective July 31, 2000 Bayer sold its 25 percent interest in Schein Pharmaceutical Inc., Florham Park, New Jersey, United States, to Watson Pharmaceuticals Inc. for €170 million.

Also effective July 31, 2000 the Animal Health Division of Bayer Corporation sold the U.S. livestock vaccines business to the animal health company Intervet International, a subsidiary of Akzo Nobel, Arnhem, Netherlands, for €81 million.

Bayer Corporation sold its 11 percent interest in Myriad Genetics of Salt Lake City, Utah, United States, for €76 million.

Effective October 18, 2000 we sold the subsidiary Bayer Solar GmbH to the SolarWorld group of Bonn, Germany in return for a cash payment of €38 million and an approximately 9 percent interest in the photovoltaics company SolarWorld AG. The total proceeds of this divestiture amounted to €56 million.

The most significant divestiture during 1999 was the sale of 70 percent of the stock of Agfa-Gevaert N.V. of Belgium. On June 1, 1999, Bayer disposed of 70 million shares — one half of its total holding — to private and public investors by way of an initial public offering at an offer price of €22 per share. In addition, the Belgian holding company Gevaert N.V. acquired 20 percent of the shares — 15 percent at the time of the stock market listing and a further 5 percent on August 31, 1999 — also for €22 per share. It is the intention to divest also the remaining 30 percent interest in Agfa-Gevaert N.V.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

In 2000 and 1999, acquisitions and divestitures of subsidiaries or businesses affected the Group's assets and liabilities as of the dates of acquisition or divestiture as follows:

	<u>Acquisitions</u>	<u>Divestitures</u>
	(€ million)	
<b>2000</b>		
Noncurrent assets .....	3,846	136
Current assets (excluding liquid assets) .....	728	90
Liquid assets .....	39	—
<b>Assets</b> .....	<b>4,613(*)</b>	<b>226</b>
Pension provisions .....	15	29
Other provisions .....	51	2
Financial obligations .....	188	—
Remaining liabilities .....	159	48
<b>Liabilities</b> .....	<b>413(**)</b>	<b>79</b>
(€ million)		
<b>1999</b>		
Noncurrent assets .....	318	1,040
Current assets (excluding liquid assets) .....	67	3,561
Liquid assets .....	7	207
<b>Assets</b> .....	<b>392</b>	<b>4,808</b>
Pension provisions .....	1	663
Other provisions .....	0	333
Financial obligations .....	7	982
Remaining liabilities .....	28	643
<b>Liabilities</b> .....	<b>36</b>	<b>2,621</b>

(\*) including €2,623 million from Lyondell

(\*\*) including €39 million from Lyondell

Lists of Bayer AG's direct and indirect holdings have been included in the Leverkusen commercial register. They also are available directly from Bayer AG on request.

The principal companies included in the consolidated financial statements are listed below:

<u>Company Name and Place of Business</u>	<u>Bayer's interest</u>	<u>Stockholders' equity</u>	<u>Sales*</u>	<u>Net income*</u>	<u>Employees</u>
	(%)	(€ million)	(€ million)	(€ million)	
<b>Germany</b>					
H. C. Starck GmbH & Co. KG, Goslar .....	100	139	478	43	1,660
Bayer Faser GmbH, Dormagen .....	100	66	311	38**	885
Wolff Walsrode AG, Walsrode .....	100	118	404	17	1,902
Haarmann & Reimer GmbH, Holzminden .....	100	303	386	12	1,690
Rhein Chemie Rheinau GmbH, Mannheim .....	100	36	211	10	558
Bayer Vital GmbH & Co. KG, Cologne .....	100	115	1,009	38	1,620
Bayer Industrieprodukte GmbH & Co. KG, Leverkusen .....	100	3	2,053	13	214

Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

<u>Company Name and Place of Business</u>	<u>Bayer's interest</u> (%)	<u>Stockholders' equity</u> (€ million)	<u>Sales*</u> (€ million)	<u>Net income*</u> (€ million)	<u>Employees</u>
<b>Other European Countries</b>					
Bayer Hispania, S.A., Spain . . . . .	100	256	391	39	1,098
Bayer S.p.A., Italy . . . . .	100	256	837	38	2,195
Química Farmacéutica Bayer, S.A., Spain . . . . .	100	158	344	35	1,027
Bayer Rubber N.V., Belgium . . . . .	100	135	211	23	492
Bayer plc, U.K. . . . .	100	106	564	12	1,287
Bayer Antwerpen N.V., Belgium . . . . .	100	1,113	1,190	8	2,523
Bayer Pharma S.A., France . . . . .	99.9	56	313	8	690
Bayer International S.A., Switzerland . . . . .	100	69	601	66	84
Bayer S.A., France . . . . .	99.9	257	377	18	550
Bayer B.V., Netherlands . . . . .	100	16	264	6	255
Bayer A/S, Denmark . . . . .	100	17	212	1	134
<b>North America</b>					
Bayer Corporation (group) . . . . .	100	5,408	10,901	217	23,171
Bayer Inc., Canada . . . . .	100	450	1,118	15	2,248
<b>Asia/Pacific</b>					
Bayer Yakuhin Ltd., Japan . . . . .	75.6	611	909	58	1,593
Sumika Bayer Urethane Co., Ltd., Japan . . . . .	60	71	279	9	148
Bayer Ltd., Japan . . . . .	100	141	289	8	273
Bayer Australia Ltd., Australia . . . . .	99.9	58	213	6	598
Bayer (South East Asia), Singapore . . . . .	100	20	184	4	228
Nihon Bayer Agrochem K.K., Japan . . . . .	99.5	238	253	(5)	325
Bayer China Co., Ltd., Hong Kong . . . . .	100	35	356	8	255
<b>Latin America/Africa/Middle East</b>					
Bayer de México, S.A. de C.V., Mexico*** . . . . .	100	287	444	54	2,192
Bayer S.A., Argentina*** . . . . .	99.9	252	346	29	985
Bayer S.A., Brazil*** . . . . .	99.9	309	622	12	2,284
Bayer (Proprietary) Ltd., South Africa . . . . .	100	72	240	11	1,138

\* The figures are taken from the respective financial statements prepared in line with local regulations. Foreign companies' figures are translated at average rates of exchange.

\*\* income before transfer

\*\*\* These figures are taken from the hard-currency statements used for the consolidation.

**Foreign currency translation**

The financial statements for 2000 are drawn up in euros (€).

As of January 1, 1999, Bayer AG adopted the euro as its reporting currency in its consolidated financial statements. The 1998 figures have been restated from the prior reporting currency (DM) into euro at the official fixed conversion ratio on January 1, 1999 of €1 = DM 1.95583. Accordingly, our consolidated financial statements for these periods translated into euro depict the same trends that would have been presented if our consolidated financial statements were presented in DM. However, our financial statements for these periods may not be comparable to the consolidated financial statements of other companies that are presented in euro but translated from a currency other than the DM. For periods ending after December 31, 1998, we prepared our consolidated financial statements in euro directly, rather than restating them from DM to euro.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

Most foreign currency receivables and payables of the consolidated companies are hedged, and are translated at the hedged rates in their financial statements. The remaining foreign currency receivables and payables are translated at closing rates.

The majority of foreign consolidated companies are to be regarded as foreign entities since they are financially, economically and organizationally autonomous. Their functional currencies according to IAS 21 (The Effects of Changes in Foreign Exchange Rates) are thus the respective local currencies. The assets and liabilities of these companies are therefore translated at closing rates, income and expense items at average rates for the year.

Where the operations of a foreign company are integral to those of Bayer AG, the functional currency is the euro.

Property, plant and equipment, intangible assets, investments in affiliated companies and other securities included in investments are translated at the historical exchange rate on the date of addition, along with any relevant amortization, depreciation, and write-downs. All other balance sheet items are translated at closing rates. Income and expense items (except amortization, depreciation and write-downs) are translated at average rates for the year.

Exchange differences arising from the translation of foreign companies' balance sheets are shown in a separate stockholders' equity item. In case of divestiture, the respective exchange differences are reversed and recognized in income.

The exchange rates for major currencies against the euro varied as follows:

		Closing rate			Average rate		
		2000	1999	1998	2000	1999	1998
		(€1)					
U.S.A. ....	USD	0.93	1.00	1.17	0.93	1.07	1.11
U.K. ....	GBP	0.62	0.62	0.70	0.61	0.66	0.67
Japan ....	JPY	106.92	102.73	134.84	99.74	121.05	144.94
Canada ....	CAD	1.40	1.46	1.82	1.37	1.59	1.65
Switzerland ....	CHF	1.52	1.61	1.60	1.56	1.60	1.61

### Consolidation methods

Capital consolidation is performed according to IAS 22 (revised 1998 — Business Combinations) by offsetting investments in subsidiaries against the underlying equities at the dates of acquisition. The identifiable assets and liabilities of subsidiaries and joint ventures are included at their fair values in proportion to Bayer's interest. Remaining differences are recognized as goodwill.

The consolidated financial statements include the accounts of those material subsidiaries in which Bayer AG has the ability to control the financial interest, generally through an ownership interest greater than 50%. The equity method is used to account for investments in material entities in which Bayer AG exerts significant influence, generally through an ownership between 20 and 50 percent interest.

Where the statements of individual consolidated companies reflect write-downs or write-backs of investments in other consolidated companies, these are reversed for the Group statements.

Intragroup sales, profits, losses, income, expenses, receivables and payables are eliminated.

Deferred taxes are recognized for temporary differences related to consolidation entries.

Intercompany profits and losses on transactions with companies included at equity were immaterial in 2000, 1999 and 1998.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

### Cash flow statement

The cash flow statement shows how the liquidity of the Bayer group was affected by the inflow and outflow of cash and cash equivalents during the year. The effects of acquisitions, divestitures and other changes regarding the companies consolidated are eliminated. Cash flows are classified by operating, investing and financing activities in accordance with IAS 7 (Cash Flow Statements). An adjustment is shown to reconcile cash and cash equivalents at the end of the year to the liquid assets reflected in the balance sheet.

The amounts reported by foreign consolidated companies are translated at average exchange rates for the year, with the exception of cash and cash equivalents, which are translated at closing rates as in the balance sheet. The effect of changes in exchange rates on cash and cash equivalents is shown separately.

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

**Notes to the Statements of Income**

**[1] Net sales**

Sales are recognized on delivery to third parties and are reported net of sales taxes and rebates. Provisions for rebates to customers are provided for in the same period that the related sales are recorded based on the contract terms. Revenues from contracts that contain customer acceptance provisions are deferred until customer acceptance occurs or the contractual acceptance period has lapsed.

2000 total reported sales rose by €3.7 billion compared with 1999, to €31 billion (1999: €27.3 billion; 1998: €28.1 billion). Sales from continuing operations advanced by €5.2 billion, to €30 billion (1999: €24.7 billion; 1998: €22.9 billion). The increase in 2000 comprised €1.7 billion from higher volumes, €0.6 billion from improvements in selling prices, €2.2 billion from favorable shifts in exchange rates and €0.7 billion from the net positive effect of acquisitions and divestitures. Acquisitions and divestitures during 2000 and 1999 affected the comparison between the two years' sales figures by the following amounts:

<u>2000</u>	<u>€ million</u>
<b>Acquisitions</b>	
Polyols business (from Lyondell) . . . . .	646
Plastic sheet business (from DSM on April 1, 1999) . . . . .	80
Purchase of further interest in Misung Ltd., Pyongtaek, South Korea . . . . .	58
Sybron Chemicals Inc., Birmingham, New Jersey, United States . . . . .	35
Paper chemicals business (from Cytec Industries) . . . . .	14
	<u>833</u>
<b>Divestitures</b>	
U.S. livestock vaccines business to Intervet International . . . . .	(27)
Troponwerke GmbH & Co. KG . . . . .	(24)
Other . . . . .	(34)
	<u>(85)</u>
<b>Net effect on sales from continuing operations</b> . . . . .	<u>748</u>
Sale of 70 percent of the shares of the Agfa-Gevaert group (May 31, 1999) . . . . .	<u>(1,801)</u>
	<u>(1,053)</u>

1999 sales declined by €0.7 billion compared with 1998, to €27.3 billion. Sales growth of €1.4 billion from higher volumes and €0.6 billion from exchange rate fluctuations was offset by declines of €0.5 billion from price changes and €2.2 billion from the net effect of acquisitions and divestitures, which is comprised as follows:

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

<u>1999</u>	<u>€ million</u>
<b>Acquisitions</b>	
Chiron Diagnostics (from Chiron in 1998) . . . . .	504
Plastic sheet business (from DSM) . . . . .	72
Seed treatment business in U.S.A. and Canada (from Gustafson in 1998) . . . . .	49
pbi Home & Garden Limited, U.K. (from Sumitomo Corporation) . . . . .	18
Elastochem Inc., U.S.A. . . . .	11
Other . . . . .	<u>14</u>
	<u>668</u>
<b>Divestitures</b>	
Agfa-Gevaert group . . . . .	(2,548)
Titanium dioxide (placed into joint venture with Kerr-McGee in 1998) . . . . .	(131)
Silicones (placed into joint venture with GE Plastics in 1998) . . . . .	(113)
Citric acid (to Tate & Lyle in 1998) . . . . .	(102)
Other . . . . .	<u>(19)</u>
	<u>(2,913)</u>
<b>Other changes in companies consolidated</b> . . . . .	<u>78</u>
	<u>(2,167)</u>

1998 sales declined by €0.1 billion compared with 1997, to €28.1 billion. Sales growth of €0.5 billion from higher volumes was offset by declines of €0.3 billion from price changes, €0.2 billion from exchange rate fluctuations and €0.1 billion from the net effect of acquisitions and divestitures. The effects on sales of the acquired or divested businesses and companies in the periods for which they are consolidated are as follows:

<u>1998</u>	<u>€ million</u>
<b>Acquisitions</b>	
Offset printing plates and graphic films (from DuPont) . . . . .	312
Chiron Diagnostics (group) . . . . .	46
Bayer Animal Health (Pty) Ltd., South Africa . . . . .	25
ISL-Chemie GmbH, Kürten, Germany . . . . .	15
Polyurethane films (from Elf Atochem) . . . . .	7
Seed treatment business U.S./Canada (from Gustafson) . . . . .	3
Other . . . . .	<u>24</u>
	<u>432</u>
<b>Divestitures</b>	
Copying systems (to Lanier) . . . . .	(119)
Titanium dioxide (placing into joint venture with Kerr-McGee) . . . . .	(115)
Citric acid (to Tate & Lyle) . . . . .	(109)
Silicones (placing into joint venture with GE Plastics) . . . . .	(109)
Enamels (to Advent International in 1997) . . . . .	(60)
Other . . . . .	<u>(12)</u>
	<u>(524)</u>
	<u>(92)</u>

Breakdowns of net sales by business segment and by region are given in the table on pages F-21 - F-24.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

### [2] Selling expenses

Shipping and handling costs included in selling expenses were €811 million, €622 million and €662 million in 2000, 1999 and 1998, respectively.

Advertising and promotion costs are expensed in the period incurred and presented in the income statement in selling expenses. Advertising expenses were €1,343 million, €1,090 million, and €1,195 million during 2000, 1999 and 1998, respectively.

### [3] Research and development expenses

According to IAS 38 (Intangible Assets), research costs cannot be capitalized; development costs can only be capitalized if specific conditions are fulfilled. Development costs must be capitalized if it is sufficiently certain that the future economic benefits to the company will cover not only the usual production, selling and administrative costs but also the development costs themselves. There are also several other criteria relating to the development project and the product or process being developed, all of which have to be met to justify asset recognition. As in previous years, these conditions are not satisfied.

### [4] Other operating income

Among the items of other operating income from continuing operations for 2000 are €84 million (1999: €118 million; 1998: €79 million) from reversals of unutilized provisions, €74 million (1999: €16 million; 1998: €148 million) from retirements of noncurrent assets, and €25 million (1999: €35 million; 1998: €23 million) from sideline operations. The cost of goods sold incurred for sideline operations has been offset against the corresponding revenues to more clearly reflect the earnings position.

### [5] Other operating expenses

Included in other operating expenses for continuing operations for 2000 are €36 million (1999: €53 million; 1998: €34 million) in write-downs of receivables, €98 million (1999: €160 million; 1998: €69 million) in amortization of acquired goodwill and €26 million (1999: €54 million; 1998: €22 million) in losses from the sale of property, plant and equipment.

In addition, €200 million (1999: €449 million; 1998: €242 million) was spent on restructuring. These expenses related mainly to the integration of Chiron Diagnostics, acquired in 1998, and the polyols business of Lyondell Chemical Company, Houston, Texas, acquired on March 31, 2000, which accounted for €61 million (1999: €111 million; 1998: €9 million) and €48 million, respectively. The streamlining of the styrenics activities of the Plastics Business Group accounted for €32 million (1999: €169 million; 1998: €24 million).

### [6] Discontinuing operations

Until June 1, 1999, Agfa-Gevaert N.V., a worldwide developer, manufacturer and distributor of photographic and electronic imaging systems, was wholly-owned by the Bayer Group. Following the sale of 70 percent of the shares of Agfa-Gevaert N.V., the companies of the Agfa-Gevaert group ceased to be consolidated. Bayer's remaining 30 percent interest in Agfa-Gevaert N.V. is stated at equity. The operating result for 1999 shown in the table below comprises that of the Agfa business up to the date of divestiture and the €1,030 million in income from the sale of the shares. Disposal of Bayer's remaining interest in Agfa is expected to occur by 2002.

EC Erdölchemie GmbH, Cologne, until May 1, 2001 a joint venture between Bayer and Deutsche BP AG, produces a variety of petrochemical feedstocks from liquid hydrocarbons and natural gas. As of May 1, 2001 Bayer sold its 50 percent interest in EC Erdölchemie GmbH, Cologne, to the joint venture partner Deutsche BP AG, Hamburg. The €99 million (1999: €46 million; 1998: €75 million) operating result of the Erdölchemie Business Group, which was formerly included in the Chemicals segment, is reflected under discontinuing operations.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

In April 2001, the decision was made to divest the remaining activities of the Fibers Business Group, including the production facilities for Dorlastan, Spandex fibers and Perlon monofilaments. The operating results reflected under discontinuing operations amounts to €51 million (1999: €23 million; 1998: €59 million).

The textile dyes business of our joint venture DyStar was combined with that of BASF effective October 1, 2000. The operating result of the DyStar Business Group, amounting to €5 million (1999: minus €24 million; 1998: €6 million), which was formerly included in the Chemicals segment, is reflected under discontinuing operations.

The non-operating results and the income taxes attributable to Agfa, EC Erdölchemie, DyStar and Fibers are reflected in the corresponding items of the income statement.

A breakdown of the results of discontinuing operations is given below.

	<u>Fibers</u>			<u>Erdölchemie</u>			<u>DyStar</u>			<u>Agfa</u>			<u>Total</u>		
	2000	1999	1998	2000	1999	1998	2000	1999	1998	2000	1999	1998	2000	1999	1998
	(€ million)														
Net sales .....	506	391	437	635	456	439	350	325	361	—	1,801	4,349	1,491	2,973	5,586
Cost of goods sold .....	(383)	(307)	(319)	(481)	(368)	(311)	(223)	(241)	(248)	—	(1,098)	(2,730)	(1,087)	(2,014)	(3,608)
Selling expenses .....	(50)	(45)	(46)	(45)	(44)	(47)	(68)	(65)	(69)	—	(388)	(928)	(163)	(542)	(1,090)
Research and development expenses .....	(9)	(9)	(8)	(2)	(1)	(2)	(9)	(10)	(10)	—	(101)	(224)	(20)	(121)	(244)
General administration expenses .....	(8)	(11)	(7)	(9)	(8)	(8)	(21)	(27)	(14)	—	(81)	(203)	(38)	(127)	(232)
Other operating income .....	10	9	7	7	17	5	6	4	13	—	1,055	109	23	1,085	134
Other operating expenses .....	(15)	(5)	(5)	(6)	(6)	(1)	(30)	(10)	(27)	—	(55)	(110)	(51)	(76)	(143)
<b>Operating result from</b>															
discontinuing operations .....	51	23	59	99	46	75	5	(24)	6	—	1,133	263	155	1,178	403
Non-operating result .....	1	(4)	(10)	(1)	(2)	(1)	(18)	(7)	(6)	—	(6)	(41)	(18)	(19)	(58)
Equity-method income (loss) .....										72	(17)		72	(17)	
<b>Income (Loss) before income taxes .....</b>	<b>52</b>	<b>19</b>	<b>49</b>	<b>98</b>	<b>44</b>	<b>74</b>	<b>(13)</b>	<b>(31)</b>	<b>0</b>	<b>72</b>	<b>1,110</b>	<b>222</b>	<b>209</b>	<b>1,142</b>	<b>345</b>
Income taxes .....	(16)	—	(1)	—	(10)	(14)	1	(4)	(3)	(26)	(24)	(105)	(41)	(38)	(123)
<b>Income (Loss) after taxes .....</b>	<b>36</b>	<b>19</b>	<b>48</b>	<b>98</b>	<b>34</b>	<b>60</b>	<b>(12)</b>	<b>(35)</b>	<b>(3)</b>	<b>46</b>	<b>1,086</b>	<b>117</b>	<b>168</b>	<b>1,104</b>	<b>222</b>

### [7] Operating result

In accordance with IAS 14 (Segment Reporting), a breakdown of certain data in the financial statements is given by business segment and geographical region, generally based on location of assets. The aim is to provide users of the financial statements with information regarding the profitability and future prospects of the Group's various activities. To allow a more accurate appraisal of continuing operations, the discontinuing operations are shown separately.

The Group is managed based upon business groups which are aggregated into reportable business segments based upon economic characteristics, the nature of products and production processes, types of customers, methods of distribution and on nature of the regulatory environment. The business segment reporting in these financial statements has been updated to reflect the Group's current internal reporting and decisions taken in 2001, such as the decision to discontinue certain business groups and planned changes in connection with the holding company structure of the Group. Giving effect to these changes, the Group operates 14 business groups, which have been aggregated into 7 reportable business segments groups.

#### Segment

#### Activity

#### Healthcare

Pharmaceuticals

Development and marketing of ethical pharmaceuticals

Consumer Care & Diagnostics

Development and marketing of over-the-counter medications, nutritional supplements, insecticides and insect repellants and products for central laboratory, near patient testing, and self-testing applications

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

<u>Segment</u>	<u>Activity</u>
<b>Agriculture</b>	
Crop Protection	Development and marketing of chemical insecticides, fungicides and herbicides
Animal Health	Development and marketing of veterinary medicines, environmental health products, and nutritional products for the health care of companion animals and commercial livestock/poultry
<b>Polymers</b>	
Plastics & Rubber	Manufacture and supply of engineered plastics and supplier of raw materials, rubber chemicals and modifiers to the rubber and tire industry
Polyurethanes, Coatings & Colorants	Development, production and marketing of raw materials, formulations and systems used in producing polyurethane polymers, lacquers, coatings, sealants, adhesives and colorants.
<b>Chemicals</b>	Manufacture and marketing of bulk and specialty chemicals, metal and ceramic powders, flavors and fragrances and cellulose derivatives

The reconciliation line reflects intersegment items and income and expenses not allocable to the segments, such as central R&D expenses, corporate costs, and revenues and expenses from sideline operations. The intersegment sales reflect intragroup transactions effected at transfer prices fixed on an arm's-length basis. The reconciliation line also reflects those assets and liabilities that cannot be allocated to the reportable segments.

Business activities which Bayer has already divested or intends to divest are shown as discontinuing operations. These are the worldwide DyStar business group; the Erdölchemie business group located in Europe, the worldwide Agfa business segment and the worldwide Fibers business.

The business segment and regional data are calculated as follows:

- The intersegment and interregional sales reflect intragroup transactions effected at transfer prices fixed on an arm's-length basis.
- The other operating income comprises that reflected in the income statement, including such income from discontinuing operations.
- Comparability of the operating results of different years may be restricted by exceptional items relating particularly to restructuring measures and acquisitions or divestitures of companies or businesses. For this reason the operating result before exceptional items is shown in addition.
- The return on sales before exceptional items is the ratio of the operating result before exceptional items to external sales.
- Expenses included in exceptional items mainly relate to restructuring measures affecting the operating business.
- The return on sales including exceptional items is the ratio of the operating result including exceptional items to external sales.
- Gross cash flow is the excess of cash receipts over cash disbursements before application of funds.
- The capital invested comprises all the assets that serve a business segment and are required to yield a return, less interest-free liabilities. It is stated as of December 31.
- The CFROI is the ratio of the gross cash flow to the average capital invested for the year.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

- The equity items are those reflected in the balance sheet and income statement. They are allocated to the business segments where possible. Equity-method income reconciles to the income statement line item “Income (Expenses) from investments in affiliated companies — net”, as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(€ million)		
Equity-method income . . . . .	71	(28)	9
Dividends and similar income . . . . .	18	9	14
Income from profit and loss transfer agreements . . . . .	1	1	2
Expenses from loss transfer . . . . .	0	0	(2)
Gains from the sale of investments in affiliated companies . . . . .	204	0	10
Losses from the sale of investments in affiliated companies . . . . .	(1)	(2)	(10)
Write-downs of investments in affiliated companies . . . . .	<u>(10)</u>	<u>(11)</u>	<u>(2)</u>
Income (Expenses) from investments in affiliated companies (net) . . . . .	<u>283</u>	<u>(31)</u>	<u>21</u>

- Capital expenditures, amortization and depreciation relate to intangible assets, property, plant and equipment.
- The research and development expenses are those reflected in the income statement.

### Key Data by Business Segment

Business Segments	Pharma- ceuticals		Consumer Care & Diagnostics		Crop Protection		Animal Health		Plastics & Rubber		Polyurethanes, Coatings & Colorants		Chemicals	
	2000	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000	1999
	(€ million)													
Net sales (external) . . . . .	6,140	5,003	3,888	3,364	2,456	2,177	999	917	5,816	4,627	5,076	3,904	4,275	3,630
— Change in € . . . . .	22.7%	15.3%	15.6%	25.1%	12.8%	6.5%	8.9%	3.5%	25.7%	6.8%	30.0%	7.6%	17.8%	(1.4%)
— Change in local currencies . . . . .	11.9%	11.2%	5.4%	21.7%	3.9%	3.5%	(1.4%)	0.2%	19.5%	5.6%	23.4%	5.5%	11.7%	(3.2%)
Intersegment sales . . . . .	39	51	0	1	97	83	6	6	122	114	462	482	466	478
Other operating income . . . . .	90	105	51	33	38	98	41	12	28	116	42	84	49	117
Operating result before exceptional items	1,165	922	311	173	401	383	157	137	560	443	518	657	442	411
Return on sales before exceptional items	19.0%	18.4%	8.0%	5.1%	16.3%	17.6%	15.7%	14.9%	9.6%	9.6%	10.2%	16.8%	10.3%	11.3%
Exceptional items . . . . .	(5)	(90)	(134)	(157)	1	49	25	(36)	(45)	(189)	(45)	(38)	20	(63)
Operating result . . . . .	1,160	832	177	16	402	432	182	101	515	254	473	619	462	348
Return on sales including exceptional items . . . . .	18.9%	16.6%	4.6%	0.5%	16.4%	19.8%	18.2%	11.0%	8.9%	5.5%	9.3%	15.9%	10.8%	9.6%
Gross cash flow . . . . .	1,048	826	371	244	397	395	160	133	802	551	794	681	600	440
Capital invested . . . . .	5,502	4,950	4,192	3,824	3,977	2,664	764	826	6,937	6,552	8,621	5,078	6,304	5,881
CFROI . . . . .	20.4%	18.4%	9.1%	6.4%	12.5%	15.4%	19.2%	16.8%	11.9%	9.0%	10.5%	14.0%	9.8%	7.8%
Equity-method income . . . . .	0	(8)	0	0	0	2	0	0	(1)	0	0	0	5	0
Equity-method investments . . . . .	20	25	0	0	0	10	0	0	23	13	616	0	18	7
Total assets . . . . .	5,291	4,535	3,480	3,247	3,218	2,410	768	812	6,176	5,163	7,568	4,178	5,262	4,594
Capital expenditures . . . . .	553	525	192	205	233	184	50	33	652	575	359	446	470	521
Amortization and depreciation . . . . .	273	268	256	260	143	95	40	59	446	425	466	243	359	232
Liabilities . . . . .	2,202	1,661	1,158	1,090	947	744	337	208	1,696	1,535	1,737	1,337	2,035	1,998
Research and development expenses . . . . .	1,096	953	266	240	276	277	94	93	128	119	151	127	159	146
Number of employees (as of Dec. 31) . . . . .	27,200	27,100	15,100	15,200	11,000	10,700	3,900	4,100	18,500	18,100	16,100	15,300	24,500	24,100

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

Business Segments	Reconciliation		Continuing Operations		Discontinuing Operations		Bayer Group	
	2000	1999	2000	1999	2000	1999	2000	1999
Net sales (external) . . . . .	830	725	29,480	24,347	1,491	2,973	30,971	27,320
— Change in € . . . . .			21.1%	8.3%			13.4%	(2.6%)
— Change in local currencies . . . . .			11.8%	5.8%			4.5%	(4.7%)
Intersegment sales . . . . .	(1,192)	(1,215)						
Other operating income . . . . .	90	111	429	676	23	55	452	731
Operating result before exceptional items . . . . .	(273)	(372)	3,281	2,754	175	1,180	3,456	3,934
Return on sales before exceptional items . . . . .			11.1%	11.3%			11.2%	14.4%
Exceptional items . . . . .	34	(51)	(149)	(575)	(20)	(2)	(169)	(577)
Operating result . . . . .	(239)	(423)	3,132	2,179	155	1,178	3,287	3,357
Return on sales including exceptional items . . . . .			10.6%	8.9%			10.6%	12.3%
Gross cash flow . . . . .	(222)	(378)	3,950	2,892	214	300	4,164	3,192
Capital invested . . . . .	736	731	37,033	30,506	1,492	1,490	38,525	31,996
CFROI . . . . .			11.4%	9.9%			11.5%	9.9%
Equity-method income . . . . .	(5)	(5)	(1)	(11)	72	(17)	71	(28)
Equity-method investments . . . . .	182	210	859	265	487	448	1,346	713
Total assets . . . . .	3,539	5,388	35,302	30,327	1,149	952	36,451	31,279
Capital expenditures . . . . .	23	30	2,532	2,519	115	113	2,647	2,632
Amortization and depreciation . . . . .	75	89	2,058	1,671	81	140	2,139	1,811
Liabilities . . . . .	9,397	7,059	19,509	15,632	565	465	20,074	16,097
Research and development expenses . . . . .	203	176	2,373	2,131	20	121	2,393	2,252
Number of employees (as of Dec. 31) . . . . .	1,600	1,500	117,900	116,100	4,200	4,300	122,100	120,400

### Key Data by Business Segment

Business Segments	Pharmaceuticals		Consumer Care & Diagnostics		Crop Protection		Animal Health		Plastics & Rubber		Polyurethanes, Coatings & Colorants		Chemicals	
	1999	1998	1999	1998	1999	1998	1999	1998	1999	1998	1999	1998	1999	1998
	(€ million)													
Net sales (external) . . . . .	5,003	4,340	3,364	2,688	2,177	2,045	917	886	4,627	4,331	3,904	3,629	3,630	3,682
— Change in € . . . . .	15.3%	1.1%	25.1%	6.6%	6.5%	1.9%	3.5%	5.5%	6.8%	1.8%	7.6%	(0.1%)	(1.4%)	(8.1%)
— Change in local currencies . . . . .	11.2%	1.8%	21.7%	9.5%	3.5%	4.0%	0.2%	7.6%	5.6%	1.9%	5.5%	(0.2%)	(3.2%)	(7.8%)
Intersegment sales . . . . .	51	34	1	1	83	76	6	1	114	93	482	546	478	531
Other operating income . . . . .	105	85	33	49	98	45	12	48	116	81	84	144	117	127
Operating result before exceptional items . . . . .	922	751	173	240	383	439	137	124	443	500	657	604	411	484
Return on sales before exceptional items . . . . .	18.4%	17.3%	5.1%	8.9%	17.6%	21.5%	14.9%	14.0%	9.6%	11.5%	16.8%	16.6%	11.3%	13.1%
Exceptional items . . . . .	(90)	24	(157)	8	49	(1)	(36)	(1)	(189)	(47)	(38)	(46)	(63)	(76)
Operating result . . . . .	832	775	16	248	432	438	101	123	254	453	619	558	348	408
Return on sales including exceptional items . . . . .	16.6%	17.9%	0.5%	9.2%	19.8%	21.4%	11.0%	13.9%	5.5%	10.5%	15.9%	15.4%	9.6%	11.1%
Gross cash flow . . . . .	826	703	244	319	395	385	133	117	551	554	681	604	440	455
Capital invested . . . . .	4,950	4,305	3,824	3,646	2,664	2,297	826	709	6,552	5,577	5,078	4,427	5,881	5,585
CFROI . . . . .	18.4%	17.6%	6.4%	8.7%	15.4%	18.0%	16.8%	16.7%	9.0%	9.9%	14.0%	13.4%	7.8%	7.9%
Equity-method income . . . . .	(8)	0	0	0	2	2	0	0	0	0	0	0	0	0
Equity-method investments . . . . .	25	28	0	0	10	10	0	0	13	0	0	0	7	0
Total assets . . . . .	4,535	3,689	3,247	3,143	2,410	2,077	812	662	5,163	4,255	4,178	3,437	4,594	4,229
Capital expenditures . . . . .	525	366	205	123	184	102	33	42	575	677	446	529	521	512
Amortization and depreciation . . . . .	268	196	260	134	95	85	59	31	425	248	243	215	232	290
Liabilities . . . . .	1,661	1,417	1,090	778	744	791	208	208	1,535	1,600	1,337	1,543	1,998	2,065
Research and development expenses . . . . .	953	767	240	165	277	251	93	86	119	111	127	121	146	156
Number of employees (as of Dec. 31) . . . . .	27,100	28,300	15,200	15,800	10,700	10,700	4,100	4,200	18,100	17,000	15,300	15,700	24,100	25,200

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

<u>Business Segments</u>	<u>Reconciliation</u>		<u>Continuing Operations</u>		<u>Discontinuing Operations</u>		<u>Bayer Group</u>	
	<u>1999</u>	<u>1998</u>	<u>1999</u>	<u>1998</u>	<u>1999</u>	<u>1998</u>	<u>1999</u>	<u>1998</u>
Net sales (external) .....	725	875	24,347	22,476	2,973	5,586	27,320	28,062
— Change in € .....			8.3%	(0.7%)			(2.6%)	(0.2%)
— Change in local currencies .....			5.8%	(0.1%)			(4.7%)	0.5%
Intersegment sales .....	(1,215)	(1,282)						
Other operating income .....	111	97	676	676	55	134	731	810
Operating result before exceptional items .....	(372)	(343)	2,754	2,799	1,180	406	3,934	3,205
Return on sales before exceptional items .....			11.3%	12.5%			14.4%	11.4%
Exceptional items .....	(51)	92	(575)	(47)	(2)	(3)	(577)	(50)
Operating result .....	(423)	(251)	2,179	2,752	1,178	403	3,357	3,155
Return on sales including exceptional items .....			8.9%	12.2%			12.3%	11.2%
Gross cash flow .....	(378)	(307)	2,892	2,830	300	485	3,192	3,315
Capital invested .....	731	430	30,506	26,976	1,490	5,167	31,996	32,143
CFROI .....			9.9%	10.9%			9.9%	10.6%
Equity-method income .....	(5)	7	(11)	9	(17)	0	(28)	9
Equity-method investments .....	210	210	265	248	448	3	713	251
Total assets .....	5,388	3,103	30,327	24,595	952	4,782	31,279	29,377
Capital expenditures .....	30	48	2,519	2,399	113	304	2,632	2,703
Amortization and depreciation .....	89	70	1,671	1,269	140	274	1,811	1,543
Liabilities .....	7,059	5,912	15,632	14,314	465	2,284	16,097	16,598
Research and development expenses .....	176	144	2,131	1,801	121	244	2,252	2,045
Number of employees (as of Dec. 31) .....	1,500	1,500	116,100	118,400	4,300	26,700	120,400	145,100

**Key Data by Region**

<u>Regions</u>	<u>Europe</u>			<u>North America</u>			<u>Asia/Pacific</u>			<u>Latin America/ Africa/Middle East</u>		
	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>
	€ million											
Net sales (external) — by market .....	11,630	10,456	10,384	9,569	7,515	6,617	4,926	3,406	2,748	3,355	2,970	2,727
Net sales (external) — by point of origin .....	13,374	12,030	11,806	9,892	7,644	6,623	3,867	2,727	2,048	2,347	1,946	1,999
— Change in € .....	11.2%	1.9%	0.5%	29.4%	15.4%	2.1%	41.8%	33.2%	(9.7%)	20.6%	(2.7%)	0.5%
— Change in local currencies .....	10.7%	1.9%	0.4%	13.9%	11.6%	0.3%	26.1%	18.0%	2.9%	7.8%	(5.0%)	(1.4%)
Interregional sales .....	3,183	2,587	2,345	1,623	1,073	861	240	161	66	112	72	49
Other operating income .....	256	554	370	63	34	83	65	41	117	45	47	106
Operating result before exceptional items .....	2,263	2,211	2,224	725	578	624	411	215	113	235	149	207
Return on sales before exceptional items .....	16.9%	18.4%	18.8%	7.3%	7.6%	9.4%	10.6%	7.9%	5.5%	10.0%	7.7%	10.4%
Exceptional items .....	16	(241)	(39)	(144)	(214)	(114)	(21)	(12)	(12)	0	(57)	26
Operating result .....	2,279	1,970	2,185	581	364	510	390	203	101	235	92	233
Return on sales including exceptional items .....	17.0%	16.4%	18.5%	5.9%	4.8%	7.7%	10.1%	7.4%	4.9%	10.0%	4.7%	11.7%
Gross cash flow .....	2,240	2,127	2,062	1,538	851	807	366	175	110	245	163	214
Capital invested .....	18,369	15,533	14,362	14,350	11,109	9,595	2,822	2,356	1,723	1,623	1,550	1,344
CFROI .....	13.3%	13.8%	14.3%	11.3%	8.1%	9.3%	13.7%	8.7%	7.1%	15.4%	11.1%	16.4%
Equity-method income .....	0	(5)	7	0	(8)	0	(1)	2	2	0	0	0
Equity-method investments .....	255	197	192	582	39	30	2	11	10	20	18	16
Total assets .....	16,386	15,623	12,295	13,115	9,566	7,993	3,162	2,759	1,982	1,826	1,682	1,570
Capital expenditures .....	1,473	1,404	1,156	752	884	964	206	128	128	101	102	150
Amortization and depreciation .....	1,004	758	693	842	683	455	125	99	56	85	128	65
Liabilities .....	8,883	7,534	7,288	6,664	4,487	4,655	1,515	1,536	857	691	750	663
Research and development expenses .....	1,371	1,247	1,078	699	617	468	87	75	94	13	16	17
Number of employees (as of Dec. 31) .....	68,100	68,200	69,500	24,800	23,700	24,500	12,400	11,500	11,000	12,000	12,000	12,700

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

Regions	Reconciliation			Continuing Operations			Discontinuing Operations			Bayer Group		
	2000	1999	1998	2000	1999	1998	2000	1999	1998	2000	1999	1998
	€ million											
Net sales (external) — by market . . . . .				29,480	24,347	22,476	1,491	2,973	5,586	30,971	27,320	28,062
Net sales (external) — by point of origin				29,480	24,347	22,476	1,491	2,973	5,586	30,971	27,320	28,062
— Change in € . . . . .				21.1%	8.3%	(0.7%)				13.4%	(2.6%)	(0.2%)
— Change in local currencies . . . . .				11.8%	5.8%	(0.1%)				4.5%	(4.7%)	0.5%
Interregional sales . . . . .	(5,158)	(3,893)	(3,321)									
Other operating income . . . . .				429	676	676	23	55	134	452	731	810
Operating result before exceptional items	(353)	(399)	(369)	3,281	2,754	2,799	175	1,180	406	3,456	3,934	3,205
Return on sales before exceptional items				11.1%	11.3%	12.5%				11.2%	14.4%	11.4%
Exceptional items . . . . .	0	(51)	92	(149)	(575)	(47)	(20)	(2)	(3)	(169)	(577)	(50)
Operating result . . . . .	(353)	(450)	(277)	3,132	2,179	2,752	155	1,178	403	3,287	3,357	3,155
Return on sales including exceptional items . . . . .				10.6%	8.9%	12.2%				10.6%	12.3%	11.2%
Gross cash flow . . . . .	(439)	(424)	(363)	3,950	2,892	2,830	214	300	485	4,164	3,192	3,315
Capital invested . . . . .	(131)	(42)	(48)	37,033	30,506	26,976	1,492	1,490	5,167	38,525	31,996	32,143
CFROI . . . . .				11.4%	9.9%	10.9%				11.5%	9.9%	10.6%
Equity-method income . . . . .				(1)	(11)	9	72	(17)	0	71	(28)	9
Equity-method investments . . . . .				859	265	248	487	448	3	1,346	713	251
Total assets . . . . .	813	697	755	35,302	30,327	24,595	1,149	952	4,782	36,451	31,279	29,377
Capital expenditures . . . . .		1	1	2,532	2,519	2,399	115	113	304	2,647	2,632	2,703
Amortization and depreciation . . . . .	2	3		2,058	1,671	1,269	81	140	274	2,139	1,811	1,543
Liabilities . . . . .	1,756	1,325	851	19,509	15,632	14,314	565	465	2,284	20,074	16,097	16,598
Research and development expenses . . . . .	203	176	144	2,373	2,131	1,801	20	121	244	2,393	2,252	2,045
Number of employees (as of Dec. 31) . . . . .	600	700	700	117,900	116,100	118,400	4,200	4,300	26,700	122,100	120,400	145,100

**[8] Income (Expenses) from investments in affiliated companies — net**

This comprises the following items:

	2000	1999	1998
	(€ million)		
Dividends and similar income . . . . .	18	9	14
• of which €8 million (1999: €2 million; 1998: €7 million) from subsidiaries			
Income from profit and loss transfer agreements . . . . .	1	1	2
• of which €1 million (1999: €1 million; 1998: €2 million) from subsidiaries			
Expenses from loss transfer . . . . .	0	0	(2)
• of which €0 million (1999: €0 million; 1998: €2 million) from subsidiaries			
Income (Expense) from companies included at equity . . . . .	71	(28)	9
Gains from the sale of investments in affiliated companies . . . . .	204	0	10
Losses from the sale of investments in affiliated companies . . . . .	(1)	(2)	(10)
Write-downs of investments in affiliated companies . . . . .	(10)	(11)	(2)
	<u>283</u>	<u>(31)</u>	<u>21</u>

As for the year 2000 the increase in this item is due to the gain from the sale of the interests in Schein Pharmaceutical (€142 million) and Myriad Genetics (€65 million) and the equity income from the Agfa-Gevaert group.

Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

**[9] Interest expense — net**

Interest income and expense comprises:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(€ million)		
Income from other securities and loans included in investments . . . . .	10	16	23
Other interest and similar income . . . . .	143	150	169
• of which €4 million (1999: €3 million; 1998: €4 million) from subsidiaries			
Interest and similar expenses . . . . .	(464)	(362)	(381)
• of which €24 million (1999: €4 million; 1998: €11 million) to subsidiaries			
	<u>(311)</u>	<u>(196)</u>	<u>(189)</u>

Finance leases are capitalized under property, plant and equipment in compliance with IAS 17 (Leases). The interest portion of the lease payments, amounting to €13 million in 2000, is reflected in interest expense.

Interest expense incurred to finance the construction phase of major investment projects is not included here. Such interest expense, amounting in 2000 to €28 million (1999: €32 million; 1998: €53 million), is capitalized as part of the cost of acquisition or construction of the property, plant or equipment concerned, based on an average capitalization rate of 5 percent.

**[10] Other non-operating expense — net**

This item comprises:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(€ million)		
Interest portion of interest-bearing provisions . . . . .	(272)	(275)	(309)
Exchange loss — net . . . . .	(21)	(27)	(16)
Write-downs of investments and marketable securities . . . . .	0	0	(3)
Miscellaneous non-operating expenses . . . . .	(18)	(13)	(12)
Miscellaneous non-operating income . . . . .	42	21	81
	<u>(269)</u>	<u>(294)</u>	<u>(259)</u>

The net exchange loss pertaining to non-operating activities also reflects hedging costs of €38 million (1999: €19 million; 1998: €18 million).

Miscellaneous non-operating income includes €18 million (1999: €9 million; 1998: €12 million) in gains from the sale of marketable securities.

**[11] Income taxes**

This item comprises the income taxes paid or accrued in the individual countries, plus deferred taxes. Deferred taxes arise from temporary differences between the carrying amounts of assets or liabilities in the accounting and tax balance sheets, from consolidation measures and from realizable loss carry-forwards. Deferred taxes are calculated at the rates which — on the basis of the statutory regulations in force, or already enacted in relation to future periods, as of the closing date — are expected to apply in the individual countries at the time of realization.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

The breakdown of income before income taxes and income taxes by origin is as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>
	(€ million)		
Income before income taxes			
— Germany . . . . .	1,482	2,087	1,527
— Other countries . . . . .	<u>1,508</u>	<u>749</u>	<u>1,201</u>
	2,990	2,836	2,728
Income taxes paid or accrued			
— Germany . . . . .	442	71	444
— Other countries . . . . .	<u>321</u>	<u>429</u>	<u>419</u>
	763	500	863
Deferred taxes			
— from temporary differences . . . . .	383	305	245
— from loss carry-forwards . . . . .	2	13	5
	<u>385</u>	<u>318</u>	<u>250</u>
	<u><u>1,148</u></u>	<u><u>818</u></u>	<u><u>1,113</u></u>

A valuation allowance is recognized against tax loss carry-forwards when it is not sufficiently certain that this income will be realized.

Changes in tax rates diminished deferred tax expense for 2000 by €21 million; in 1999, such changes increased it by €41 million; in 1998, such changes diminished it by €1 million.

Deferred taxes result primarily from temporary differences between the accounting and tax balance sheets of individual consolidated companies with regard to the recognition and/or valuation of certain items. The deferred taxes are computed according to IAS 12 (Income Taxes).

The deferred taxes are allocable to the various balance sheet items as follows:

	<u>Dec. 31, 2000</u>		<u>Dec. 31, 1999</u>	
	<u>Deferred tax assets</u>	<u>Deferred tax liabilities</u>	<u>Deferred tax assets</u>	<u>Deferred tax liabilities</u>
	(€ million)			
Intangible assets . . . . .	87	72	101	28
Property, plant and equipment . . . . .	68	1,745	18	1,409
Investments . . . . .	2	79	10	40
Inventories . . . . .	298	86	266	92
Receivables . . . . .	116	51	76	28
Other current assets . . . . .	51	132	5	74
Pension provisions . . . . .	327	202	265	131
Other provisions . . . . .	144	46	210	26
Other liabilities . . . . .	163	40	150	32
Loss carry-forwards . . . . .	82	—	76	—
Valuation allowances . . . . .	(67)	—	(67)	—
Loss carry-forwards . . . . .	82	—	76	—
	<u>1,271</u>	<u>2,453</u>	<u>1,110</u>	<u>1,860</u>
Set-off* . . . . .	<u>(858)</u>	<u>(858)</u>	<u>(703)</u>	<u>(703)</u>
	<u><u>413</u></u>	<u><u>1,595</u></u>	<u><u>407</u></u>	<u><u>1,157</u></u>

\* According to IAS 12 (Income Taxes), deferred tax assets and deferred tax liabilities should, under certain conditions, be offset if they relate to income taxes levied by the same taxation authority.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

Changes in companies consolidated in 2000 account for €122 million in deferred tax assets and €167 million in deferred tax liabilities.

Utilization of tax loss carry-forwards from previous years diminished the amount of income taxes paid or accrued in 2000 by €7 million (1999: €9 million; 1998: €9 million) and increased deferred tax expense by €2 million (1999: €13 million; 1998: €5 million).

The gross values of net operating loss carry forwards by expiry date are as follows:

	<u>Dec. 31, 2000</u>	<u>Dec. 31, 1999</u>
	(€ million)	
One year .....	3	—
Two years .....	20	3
Three years .....	11	20
Four years .....	22	11
Five years & thereafter .....	<u>196</u>	<u>174</u>
	<u>252</u>	<u>208</u>

In 2000 €48 million (1999: €27 million) of this amount was used as the basis for computing deferred taxes. As a result, deferred taxes of €15 million (1999: €9 million) have been recorded.

Deferred tax liabilities have not been recognized for temporary differences associated with investments in foreign subsidiaries of €2,887 million (1999: €2,617 million) as Bayer has determined that the profits concerned will not be distributed in the foreseeable future.

If deferred taxes were recognized for these temporary differences, the liability would be based on the respective withholding tax rates only. For most countries, double taxation agreements ensure that any withholding taxes paid can be deducted from the tax base or the tax to be paid in Germany.

The actual income tax expense of €1,148 million for 2000 (1999: €818 million; 1998: €1,113 million) is €31 million less (1999: €394 million less; 1998: €22 million more) than the €1,179 million (1999: €1,212 million; 1998: €1,091 million) that would result from applying to the pre-tax income of the Group a tax rate of 39.5 percent (1999: 42.7 percent; 1998: 40.8 percent), which is the weighted average of the theoretical tax rates for the individual Group companies. The reconciliation of theoretical to actual income tax expense for the Group is as follows:

	<u>2000</u>		<u>1999</u>		<u>1998</u>	
	€ million	%	€ million	%	€ million	%
Theoretical income tax expense .....	1,179	100	1,212	100	1,091	100
Lower taxes due to tax-free income .....	(151)	(13)	(434)	(36)	(69)	(6)
Higher taxes due to non-tax-deductible expenses .....	93	8	90	7	155	14
Other tax effects .....	<u>27</u>	<u>2</u>	<u>(50)</u>	<u>(4)</u>	<u>(64)</u>	<u>(6)</u>
<b>Actual income tax expense .....</b>	<u>1,148</u>	<u>97</u>	<u>818</u>	<u>67</u>	<u>1,113</u>	<u>102</u>
Effective tax rate in % .....	<u>38.4</u>		<u>28.8</u>		<u>40.8</u>	

The income tax expense for 2000 does not include any prior-period items. The 1999 figure includes €1 million in prior-period income; 1998: €2 million.

### [12] Other taxes

Other taxes amounting to €229 million (1999: €189 million; 1998: €179 million) are included in the cost of goods sold, selling expenses, research and development expenses or general administration expenses. These are mainly property-related taxes.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

### [13] Minority stockholders' interest

Minority interest in income amounts to €29 million (1999: €16 million; 1998: €7 million), and minority interest in losses to €3 million (1999: €0 million; 1998: €6 million), yielding net minority interest of €26 million (1999: €16 million; 1998: €1 million) in Group income after taxes.

### [14] Earnings per share

Earnings per share are determined according to IAS 33 (Earnings Per Share) by dividing the net income by the average number of shares.

In 2000, as in 1999 and 1998, the number of shares remained constant at 730,341,920. Earnings per share were €2.49 (1999: €2.74; 1998: €2.21).

There were no subscription rights outstanding in 2000, 1999 or 1998, and therefore no dilutive potential shares.

### [15] Cost of materials

The total cost of materials for continuing operations amounted to €10,284 million (1999: €7,374 million; 1998: €7,273 million), comprising €9,763 million (1999: €6,824 million; 1998: €6,741 million) in expenses for raw materials, supplies and goods purchased for resale, and €670 million (1999: €550 million; 1998: €532 million) in expenses for purchased services.

The cost of materials for the discontinuing operations was €775 million (1999: €1,768 million; 1998: €2,264 million). While Erdölchemie incurred costs of €545 million (1999: €371 million; 1998: €312 million) entirely for raw materials and supplies, DyStar accounted for €104 million (1999: €125 million; 1998: €187 million), including €1 million (1999: €1 million; 1998: €1 million) for purchased services. Fibers accounted for €126 million (1999: €92 million; 1998: €102 million), including €23 million (1999: €20 million; 1998: €24 million) for purchased services. In 1999 Agfa accounted for €1,180 million (1998: €1,663 million), which included €14 million (1998: €46 million) for purchased services.

### [16] Personnel expenses

The breakdown of personnel expenses is as follows:

	Continuing Operations			Discontinuing Operations										
				Fibers			EC			Dystar			Agfa	
	2000	1999	1998	2000	1999	1998	2000	1999	1998	2000	1999	1998	1999	1998
Wages and salaries .....	5,998	5,374	5,151	54	54	55	55	56	56	67	64	62	417	1,038
Social expenses .....	1,520	1,377	1,356	13	12	12	15	22	17	13	12	12	161	347
of which pension expenses .....	[405]	[354]	[348]	[3]	[1]	[2]	[5]	[12]	[7]	[3]	[3]	[3]	[76]	[141]
	7,518	6,751	6,507	67	66	67	70	78	73	80	76	74	578	1,385

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

### [17] Number of employees

The average number of employees in continuing operations, classified by corporate functions, was as follows:

	<b>2000</b>	<b>1999</b>	<b>1998</b>
Marketing .....	34,355	34,474	33,142
Technology .....	61,403	61,117	61,476
Research .....	11,535	12,015	11,622
Administration .....	9,996	9,905	9,920
	117,289	117,511	116,160
<i>Of which trainees</i> .....	2,759	2,618	2,872

The employees of joint ventures are included in the above figures in proportion to Bayer's interests in the respective companies. The total number of people employed by our joint ventures in 2000 was 1,103 (1999: 1,121; 1998: 1,097).

The figures in the above table do not include people employed in discontinuing operations. In 2000, DyStar employed on average 3,788 people (1999: 3,216; 1998: 3,106), Erdölchemie on average 2,131 people (1999: 2,247; 1998: 2,220), while Fibers employed on average 1,643 people (1999: 1,645; 1998: 1,690).

### Notes to the Balance Sheets

#### [18] Intangible assets

Acquired intangible assets other than goodwill are recognized at cost and amortized over a period of 4 to 15 years, depending on their estimated useful lives. Write-downs are made for any declines in value that are expected to be permanent. Assets are written back if the reasons for previous years' write-downs no longer apply.

Goodwill is capitalized in accordance with IAS 22 and amortized on a straight-line basis over a maximum estimated useful life of 20 years. The value of goodwill is reassessed regularly based on impairment indicators and written down if necessary. Since the adoption of IAS 36, such write-downs are measured by comparison to the discounted cash flows expected to be generated by the assets to which the goodwill can be ascribed. In 1999 before the adoption of IAS 36, the group recorded a write-down of goodwill of €68 million within the Plastics & Rubber segment. This write down, which was measured by comparison to expected cash flows, discounted at 6%, was indicated by changes in production methods that made acquired production technology obsolete.

The group capitalizes certain development costs relating to the application development stage of internally-developed software. These costs are amortized over their useful life from the date they are placed in service.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

Changes in intangible assets in 2000 were as follows:

	<b>Acquired concessions, industrial property rights, similar rights and assets, and licenses thereunder</b>	<b>Acquired goodwill</b>	<b>Advance payments</b>	<b>Total</b>
		(€ million)		
Gross carrying amounts, Dec. 31, 1999 .....	1,903	944	84	2,931
Exchange differences .....	126	22	6	154
Changes in companies consolidated .....	5	36	—	41
Acquisitions .....	2,268	301	—	2,569
Capital expenditures .....	293	5	56	354
Retirements .....	(95)	(28)	—	(123)
Transfers .....	<u>66</u>	<u>9</u>	<u>(75)</u>	<u>—</u>
<b>Gross carrying amounts, Dec. 31, 2000 .....</b>	<b><u>4,566</u></b>	<b><u>1,289</u></b>	<b><u>71</u></b>	<b><u>5,926</u></b>
Accumulated amortization and write-downs,				
Dec. 31, 1999 .....	479	239	—	718
Exchange differences .....	39	5	—	44
Changes in companies consolidated .....	1	(3)	—	(2)
Amortization and write-downs in 2000 .....	344	98	—	442
• <i>of which write-downs</i> .....	[—]	[1]	[—]	[1]
Retirements .....	(91)	(28)	—	(119)
Transfers .....	—	—	—	—
Accumulated amortization and write-downs,				
Dec. 31, 2000 .....	<u>772</u>	<u>311</u>	<u>—</u>	<u>1,083</u>
<b>Net carrying amounts, Dec. 31, 2000 .....</b>	<b><u>3,794</u></b>	<b><u>978</u></b>	<b><u>71</u></b>	<b><u>4,843</u></b>
Net carrying amounts, Dec. 31, 1999 .....	<u>1,424</u>	<u>705</u>	<u>84</u>	<u>2,213</u>

The exchange differences are the differences between the carrying amounts at the beginning and the end of the year that result from translating foreign companies' figures at the respective different exchange rates and changes in their assets during the year at the average rate for the year.

### [19] Property, plant and equipment

Property, plant and equipment is carried at the cost of acquisition or construction. Assets subject to depletion are depreciated over their estimated useful lives. Write-downs are made for any declines in value that are expected to be permanent, aside from those reflected in depreciation. Assets are written back if the reasons for previous years' write-downs no longer apply.

The cost of construction of self-constructed property, plant and equipment comprises the direct cost of materials, direct manufacturing expenses, appropriate allocations of material and manufacturing overheads, and an appropriate share of the depreciation and write-downs of assets used in construction. It includes the shares of expenses for company pension plans and discretionary employee benefits that are attributable to construction.

If the construction phase of property, plant or equipment extends over a long period, the interest incurred on borrowed capital up to the date of completion is capitalized as part of the cost of acquisition or construction.

Expenses for the repair of property, plant and equipment are normally charged against income, but they are capitalized if they result in an enlargement or substantial improvement of the respective assets.

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

Property, plant and equipment is depreciated by the straight-line method, except where the declining-balance method is more appropriate in light of the actual utilization period.

When assets are retired, sold, or abandoned, the difference between the net proceeds and the net book value of the asset is recognized as a gain or loss and is presented in other operating income or expense in the income statement.

The following depreciation periods, based on the estimated useful lives of the respective assets, are applied throughout the Group:

Buildings . . . . .	20 to 50 years
Outdoor infrastructure . . . . .	10 to 20 years
Plant installations . . . . .	6 to 20 years
Machinery and apparatus . . . . .	6 to 12 years
Laboratory and research facilities . . . . .	3 to 5 years
Storage tanks and pipelines . . . . .	10 to 20 years
Vehicles . . . . .	4 to 8 years
Computer equipment . . . . .	3 to 5 years
Furniture and fixtures . . . . .	4 to 10 years

In accordance with IAS 17 (Leases), assets leased on terms equivalent to financing a purchase by a long-term loan (finance leases) are capitalized at the lower of their fair value or the present value of the minimum lease payments. The leased assets are depreciated over their estimated useful life except where subsequent transfer of title is uncertain, in which case they are depreciated over their estimated useful life or the respective lease term, whichever is shorter. The future lease payments are recorded as financial obligations.

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

Changes in property, plant and equipment in 2000 were as follows:

	<u>Land and buildings</u>	<u>Machinery and technical equipment</u>	<u>Furniture, fixtures and other equipment</u>	<u>Construction in progress and advance payments to vendors and contractors</u>	<u>Total</u>
	(€ million)				
Gross carrying amounts, Dec. 31, 1999 . . . . .	7,529	17,860	2,360	1,458	29,207
Exchange differences . . . . .	129	399	28	49	605
Changes in companies consolidated . . . . .	(32)	98	1	—	67
Acquisitions . . . . .	57	207	10	317	591
Capital expenditures . . . . .	115	522	295	1,361	2,293
Retirements . . . . .	(142)	(589)	(276)	(17)	(1,024)
Transfers . . . . .	<u>322</u>	<u>1,489</u>	<u>95</u>	<u>(1,906)</u>	<u>—</u>
<b>Gross carrying amounts, Dec. 31, 2000 . . . . .</b>	<b><u>7,978</u></b>	<b><u>19,986</u></b>	<b><u>2,513</u></b>	<b><u>1,262</u></b>	<b><u>31,739</u></b>
Accumulated depreciation and write-downs,					
Dec. 31, 1999 . . . . .	3,867	11,742	1,605	7	17,221
Exchange differences . . . . .	42	122	17	—	181
Changes in companies consolidated . . . . .	(18)	77	1	—	60
Depreciation and write-downs in 2000 . . . . .	238	1,172	283	—	1,693
• of which write-downs . . . . .	[5]	[11]	[—]	[—]	[16]
Retirements . . . . .	(37)	(530)	(194)	—	(761)
Transfers . . . . .	—	—	—	—	—
<b>Accumulated depreciation and write-downs,   Dec. 31, 2000 . . . . .</b>	<b><u>4,092</u></b>	<b><u>12,583</u></b>	<b><u>1,712</u></b>	<b><u>7</u></b>	<b><u>18,394</u></b>
<b>Net carrying amounts, Dec. 31, 2000 . . . . .</b>	<b><u>3,886</u></b>	<b><u>7,403</u></b>	<b><u>801</u></b>	<b><u>1,255</u></b>	<b><u>13,345</u></b>
Net carrying amounts, Dec. 31, 1999 . . . . .	<u>3,662</u>	<u>6,118</u>	<u>755</u>	<u>1,451</u>	<u>11,986</u>

The exchange differences are as defined for intangible assets.

Capitalized property, plant and equipment includes assets with a total net value of €199 million (1999: €188 million) held under finance leases. The gross carrying amounts of these assets total €277 million (1999: €245 million). These assets are mainly furniture and fixtures where the present value of the minimum lease payments covers substantially all of the cost of acquisition, or buildings where title passes to the lessee on expiration of the lease.

For property leased to other parties and accounted for as an operating lease, the capitalized property includes assets with a total net book value of €247 million (1999: €223 million) and gross carrying amounts of €717 million (1999: €652 million).

**[20] Investments**

Investments in non-consolidated subsidiaries, other affiliated companies and other securities are carried individually at cost. Write-downs are made for any declines in value that are expected to be permanent. Investments are written back if the reasons for previous years' write-downs no longer apply.

The cost of acquisition of investments in companies included at equity is adjusted annually in line with any changes in these companies' total stockholders' equity.



## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

It also includes the shares of expenses for company pension plans and discretionary employee benefits that are attributable to production. Administrative costs are included where they are attributable to production.

Work in process and finished goods are grouped together in light of the production sequences characteristic of the chemical industry.

Inventories are comprised as follows:

	<u>Dec. 31, 2000</u>	<u>Dec. 31, 1999</u>
	(€ million)	
Raw materials and supplies . . . . .	1,041	978
Work in process, finished goods and goods purchased for resale . . . . .	5,046	4,006
Advance payments . . . . .	<u>8</u>	<u>8</u>
	<u>6,095</u>	<u>4,992</u>

Changes in inventory reserves are as follows:

	<u>Dec. 31, 2000</u>	<u>Dec. 31, 1999</u>
	(€ million)	
Balance at the beginning of the year . . . . .	(248)	(328)
Additions charged to expense . . . . .	(218)	(242)
Exchange differences . . . . .	(9)	(20)
Changes to consolidated companies . . . . .	—	34
Deductions due to utilization . . . . .	<u>234</u>	<u>308</u>
<b>Balance at the end of the year . . . . .</b>	<u>(241)</u>	<u>(248)</u>

### [22] Trade accounts receivable

Trade accounts receivable are stated at nominal value, less write-downs of €204 million (1999: €173 million) for amounts unlikely to be recovered.

Trade accounts receivable as of December 31, 2000 include €6,235 million (1999: €5,325 million) maturing within one year and €8 million (1999: €8 million) maturing after one year. Of the total, €11 million (1999: €25 million) is receivable from subsidiaries, €87 million (1999: €77 million) from other affiliated companies and €6,146 million (1999: €5,231 million) from other customers.

### [23] Other receivables and other assets

Other receivables and other assets are stated at nominal value, less any necessary write-downs of €4 million (1999: €11 million) for amounts unlikely to be recovered.

	<u>Dec. 31, 2000</u>	<u>Dec. 31, 1999</u>
	(€ million)	
Other receivables . . . . .	1,346	839
Claims for tax refunds . . . . .	662	451
Short-term loans-other . . . . .	153	64
Leases payments receivable . . . . .	96	93
Short-term loans . . . . .	87	65
Payroll-receivable . . . . .	47	30
Interest receivable on loans . . . . .	<u>23</u>	<u>34</u>
	<u>2,414</u>	<u>1,576</u>

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

Total other receivables and other assets include €149 million (1999: €85 million) pertaining to subsidiaries and €44 million (1999: €50 million) pertaining to other affiliated companies.

Total other receivables and other assets in the amount of €442 million (1999: €297 million) mature in more than one year; of this amount, €31 million (1999: €32 million) pertains to subsidiaries.

Changes in provision for doubtful receivables are as follows:

	<b>Dec. 31, 2000</b>	<b>Dec. 31, 1999</b>
	(€ million)	
Balance at the beginning of the year .....	(173)	(240)
Additions charged to expense .....	(42)	(60)
Exchange differences .....	(5)	(18)
Changes to consolidated companies .....	—	81
Deductions due to utilization .....	16	64
<b>Balance at the end of the year .....</b>	<b>(204)</b>	<b>(173)</b>

Lease agreements in which the other party, as lessee, is to be regarded as the economic owner of the leased assets (finance leases) give rise to accounts receivable in the amount of the discounted future lease payments. These receivables amount to €96 million (1999: €93 million), while the interest portion pertaining to future years amounts to €23 million (1999: €29 million). The lease payments associated with finance leases are due as follows:

	<b>Dec. 31, 2000</b>
	(€ million)
Fiscal year	
2001 .....	25
2002 .....	20
2003 .....	16
2004 .....	13
2005 .....	10
After 2005 .....	35
Total minimum lease payments .....	119
Of which interest portion .....	(23)
	96
Current portion .....	21
Long-term portion .....	75

### [24] Liquid assets

	<b>Dec. 31, 2000</b>	<b>Dec. 31, 1999</b>
	(€ million)	
Marketable securities and other instruments .....	213	328
Cash and cash equivalents .....	491	2,812
	<b>704</b>	<b>3,140</b>

Marketable securities are shown at the lower of cost of acquisition or fair value as of the closing date. The fair values of marketable securities and other instruments as of December 31, 2000 amount to €247 million (1999: €376 million). The Company considers all highly liquid investments purchased with original maturities of three months or less to be cash equivalents.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

### [25] Deferred charges

Deferred charges as of December 31, 2000 include unamortized debt discounts of €17 million (1999: €22 million). The debt discounts are amortized annually over the lives of the underlying liabilities.

Total deferred charges include €179 million that is expected to be used up in 2001.

### [26] Stockholders' equity

The capital stock of Bayer AG amounts to €1,870 million and is divided into 730,341,920 no-par bearer shares of a single class.

Authorized capital totaling €256 million was approved by the Annual Stockholders' Meeting on April 30, 1997. It expires on April 30, 2002. The authorized capital can be used to increase the capital stock through the issuance of new shares against cash contributions.

Conditional capital of €83 million existed at December 31, 2000. This capital may only be utilized to the extent necessary to issue the requisite number of shares as and when conversion or subscription rights are exercised by the holders of convertible bonds or of warrants conferring subscription rights, respectively, that may be issued by Bayer AG or a wholly owned direct or indirect subsidiary through April 29, 2004.

Capital reserves include the paid-in surplus from the issuance of shares and subscription rights by Bayer AG.

The retained earnings contain prior years' undistributed income of companies included in the consolidation.

The changes in the various components of stockholders' equity during 2000, 1999 and 1998 are shown in the statements of changes in stockholders' equity.

The dividend per share amount for 2000, 1999 and 1998 were €1.40, €1.30 and €1.02, respectively.

### [27] Minority interest

Minority interest mainly comprises third parties' shares in the equity of the consolidated subsidiaries Bayer Yakuhin Ltd., Japan; Sumika Bayer Urethane Co., Ltd., Japan; the Makroform GmbH group; Bayer (India) Ltd.; and Bayer ABS Ltd., India.

### [28] Provisions for pensions and other post-employment benefits

Group companies provide retirement benefits for most of their employees, either directly or by contributing to independently administered funds. The way these benefits are provided varies according to the legal, fiscal and economic conditions of each country, the benefits generally being based on the employees' remuneration and years of service. The obligations relate both to existing retirees' pensions and to pension entitlements of future retirees.

Group companies provide retirement benefits under defined contribution and/or defined benefit plans.

In the case of **defined contribution plans**, the company pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. Once the contributions have been paid, the company has no further payment obligations. The regular contributions constitute net periodic costs for the year in which they are due and as such are included in the cost of goods sold, selling expenses, research and development expenses or general administration expenses, and thus in the operating result. In 2000, these expenses totaled €437 million (1999: €491 million).

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

All other retirement benefit systems are defined benefit plans, which may be either unfunded, i.e. financed by provisions (accruals), or funded, i.e. financed through pension funds. In 2000, expenses for defined benefit plans amounted to €326 million (1999: €359 million). These net periodic costs — except for the interest portion — are included in the cost of goods sold, selling expenses, research and development expenses, general administration expenses or other operating income. For the most important defined benefit plans they are comprised as follows:

	<b>Dec. 31, 1999</b>	<b>Dec. 31, 2000</b>
	(€ million)	
Service cost . . . . .	210	200
Past service cost . . . . .	1	9
Interest cost . . . . .	589	543
Return on plan assets . . . . .	(526)	(470)
Settlement of Agfa . . . . .	—	(32)
Amortization of actuarial amounts . . . . .	(14)	41
	<u>260</u>	<u>291</u>

The pension provisions for defined benefit plans are calculated in accordance with IAS 19 (Employee Benefits — revised 1998) using the projected unit credit method. The future benefit obligations are valued by actuarial methods on the basis of appropriate assessment of the relevant parameters. Benefits expected to be payable after retirement are spread over each employee's entire period of employment, allowing for future changes in remuneration. The legally independent fund "Bayer Pensionskasse VVaG" (Bayer Pensionskasse) is a private insurance company and therefore subject to German law on the Supervision of Private Insurance Companies. Bayer guarantees the commitments of the Bayer Pensionskasse. For IAS and U.S. GAAP purposes Bayer Pensionskasse is classified as a defined benefit plan.

All defined benefit plans necessitate actuarial computations and valuations. These are based not only on life expectancy but also on the following parameters, which vary from country to country according to economic conditions:

	<b>Parameters</b>	
	<b>Dec. 31, 2000</b>	<b>Dec. 31, 1999</b>
Discount rate . . . . .	6.5%-7.0%	6.5%-6.75%
Projected future remuneration increases . . . . .	3.0%-4.5%	3.0%-4.5%
Projected future pension increases . . . . .	2.0%-4.5%	2.0%-4.5%
Projected employee turnover (according to age and gender) . . . . .	Empirical data	Empirical data
Projected return on plan assets . . . . .	6.5%-8.5%	6.5%-8.5%

The status of unfunded and funded defined benefit obligation, computed using the appropriate parameters, is as follows:

	<b>Dec. 31, 2000</b>	<b>Dec. 31, 1999</b>
	(€ million)	
Defined benefit obligation . . . . .	(9,535)	(9,102)
Fair value of plan assets . . . . .	7,847	7,514
<b>Funded status</b> . . . . .	(1,688)	(1,588)
Unrecognized transition liability (asset) . . . . .	(11)	(17)
Unrecognized actuarial (gains) losses . . . . .	(203)	(325)
Asset limitation due to uncertainty of obtaining future benefits . . . . .	(1,249)	(1,261)
<b>Net recognized liability</b> . . . . .	<u>(3,151)</u>	<u>(3,191)</u>

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

The adjustments, as yet unrecognized in the income statement, represent the difference between the defined benefit obligation — after deducting the fair value of plan assets — and the net liability recognized in the balance sheet. They arise mainly from actuarial gains or losses caused by differences between actual and previously assumed trends in employee turnover and remuneration. Pension assets in excess of the obligation are recorded in other receivables and assets. In accordance with IAS 19 (Employee Benefits), these amounts are reflected in the balance sheet and will be recognized in the income statement over the expected remaining working lives of existing employees (currently 15 years in Germany and 14 years in the USA).

The net liability under these defined benefit plans changed as follows:

	<b>Dec. 31, 2000</b>	<b>Dec. 31, 1999</b>
Net liability recognized at the beginning of the year . . . . .	(3,191)	(3,615)
Pension benefit (cost) income . . . . .	(260)	(291)
Employer contributions . . . . .	255	255
Divestitures . . . . .	20	281
Change in asset limitation . . . . .	12	168
Change in companies consolidated . . . . .	11	10
Change in currency translation . . . . .	2	1
<b>Net liability recognized at the end of the year . . . . .</b>	<b>(3,151)</b>	<b>(3,191)</b>

Funds and benefit obligations are valued on a regular basis at least every three years. For all major funds, comprehensive actuarial valuations are performed annually.

Provisions are also set up under this item for the obligations of Group companies to provide health care. For health care costs, the valuation is based on the assumption that they will increase at an annual rate of 5 percent in the long term. Early retirement and certain other benefits to their retirees are also included, since these obligations are similar in character to pension obligations. Like pension obligations, they are valued in line with IAS 19. In 2000 such obligations amounted to €637 million (1999: €593 million). The resulting expenses for 2000 amounted to €214 million (1999: €165 million), comprising €192 million (1999: €176 million) for service cost, €52 million (1999: €46 million) for interest cost, €30 million (1999: €23 million) for expected return on plan assets, a settlement gain on the Agfa divestiture of €32 million in 1999 and an immaterial amount of actuarial gains.

### [29] Other provisions

Other provisions are valued in accordance with IAS 19 (Employee benefits) or with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets), as appropriate. Generally, the best estimate of the extent of the related obligations is used. Long term-portion of provisions are discounted to their present value.

The Group sets up and maintains adequate reserves for probable and on-going litigation cases when a reasonable estimate can be made. Reserves include all estimated legal fees and costs of settlement. The amounts reserved are based upon written notification and reasonable settlement cost estimates provided by the Group's attorneys. Periodically, but at least quarterly, the reserves are reviewed and updated with the Group's attorneys.

Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

	Dec. 31, 2000		Dec. 31, 1999	
	Total	Maturing in 2001	Total	Maturing in 2000
	(€ million)			
Provisions for taxes . . . . .	537	370	493	254
Provisions for personnel commitments . . . . .	1,044	555	947	456
Provisions for environmental remediation . . . . .	230	12	246	32
Provisions for trade-related commitments . . . . .	411	397	254	254
Miscellaneous provisions . . . . .	687	367	596	348
	<u>2,909</u>	<u>1,701</u>	<u>2,536</u>	<u>1,344</u>

Personnel commitments mainly include annual bonus payments, service awards and other personnel costs. Reimbursements from the German government under the pre-retirement-part-time work program are recorded as income and as a receivable when the Company has fulfilled the criteria to receive such reimbursements. Trade related commitments mainly include rebates, as well as obligations relating to services already received but not invoiced. The miscellaneous provisions include €131 million for restructuring (1999: €106 million).

Changes in provisions were as follows:

	Jan. 1, 2000	Changes in companies consolidated	Currency effects	Allocation	Utilization	Reversal	Dec. 31, 2000
	(€ million)						
Provisions for taxes . . . . .	493	2	5	738	(688)	(13)	537
Provisions for personnel commitments . . . . .	947	11	12	579	(480)	(25)	1,044
Provisions for environmental remediation . . . . .	246	10	5	51	(78)	(4)	230
Provisions for trade-related commitments . . . . .	254	1	8	564	(400)	(16)	411
Miscellaneous provisions . . . . .	<u>596</u>	<u>10</u>	<u>15</u>	<u>558</u>	<u>(461)</u>	<u>(31)</u>	<u>687</u>
	<u>2,536</u>	<u>34</u>	<u>45</u>	<u>2,490</u>	<u>(2,107)</u>	<u>(89)</u>	<u>2,909</u>

**Stock Compensation Program**

In 2000, the Group implemented a three-tier program consisting of a Stock Option Program for the members of the Board of Management and senior executives, a Stock Incentive Program for middle management and equivalent employees, and a Stock Participation Program for junior management and other employees. To be eligible for the stock option and stock incentive programs and for Module 1 of the stock participation program, participants must place Bayer AG shares of their own into a special deposit account. Participants do not pay an exercise price for the shares they receive under these programs. Rather, they receive the shares as bonus shares or, in the case of Module 2 of the stock participation program, have the opportunity to purchase shares at a discounted price.

*Stock Option Program*

Members of the Board of Management and senior executives who wish to participate in the stock option program must place Bayer AG shares of their own in a special deposit account. We determine on an individual basis the maximum number of shares each participant may deposit; the participant receives one option right for each 20 shares deposited. These deposited shares are “locked up”; the participant may not sell them during the following three years. After the end of these three years, a two-year exercise period begins. During this period, the participant may exercise the option rights if he or she has fulfilled the performance criteria. Any unexercised

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

option rights expire at the end of this two-year period. To determine whether the participant is eligible to exercise option rights and, if so, the number of shares received upon exercise, we apply three performance criteria. Two of these measure the relative performance of the Bayer AG share; the third measures the individual contribution of the participant. If the participant fails to meet minimum standards under these criteria, the participant receives no shares under the program. At December 31, 2000, there were no option rights exercisable and there were no cancellations or expiry of options during fiscal 2000. No stock options were granted during the year ended December 31, 2000.

German law generally requires specific shareholder approval for the issuance of shares to members of a corporation's board of management. To the extent that we are unable to issue shares under the stock option program to participating members of our Board of Management at the time they are entitled to exercise their option rights, therefore, the option rights would function as share appreciation rights. Instead of shares, the participant would receive the cash value of the shares to which the option rights would otherwise entitle him or her, based on the trading price of the Bayer AG share at the time of exercise.

*Stock Incentive Program*

Like the stock option program, our stock incentive program for middle management requires participants to deposit Bayer AG shares in a special deposit account. Each participant may deposit shares with a maximum aggregate value of half his or her performance-related bonus for the preceding fiscal year. The number of incentive shares the participant receives depends on the number of Bayer AG shares deposited at the launch of the program as well as on the total return of the Bayer AG share. Unlike the stock option program, the stock incentive program does not "lock up" deposited shares. Participants may sell their deposited shares during the term of the program, but any deposited shares they sell are no longer counted in calculating the number of incentive shares for subsequent distribution dates. The stock incentive program has a ten-year term. There are three incentive share distribution dates during this period. On these dates, the participant receives incentive shares as follows:

<u>Distribution date at end of</u>	<u>Incentive shares received (per 10 deposited shares)</u>
Second year . . . . .	2
Sixth year . . . . .	4
Tenth year . . . . .	4

Participants receive incentive shares only if the total return of the Bayer AG share has outperformed the Dow Jones Euro Stoxx 50<sup>SM</sup> performance index on the relevant distribution date, as calculated from the beginning of the program.

*Stock Participation Program*

Our stock participation program has two components, Module 1 and Module 2. Employees not covered by the stock option program or stock incentive program may generally participate in both Module 1 and Module 2.

The Module 1 program, like the stock incentive program, requires participants to deposit Bayer AG shares in a special account. Each participant may deposit shares with a maximum aggregate value of half his or her performance-related bonus in the year they enter the program. As with the stock incentive program, participants in the stock participation program may sell their deposited Bayer AG shares during the term of the program; any shares they sell are no longer counted in calculating the number of bonus shares on subsequent distribution dates. Module 1 has a term of ten years and entitles the participant to receive incentive shares on three distribution dates based on the number of shares he or she has deposited. Unlike the stock incentive program, Module 1 does not impose a share performance criterion. The participant receives incentive shares as follows on the distribution dates:

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

<u>Distribution date at end of</u>	<u>Incentive shares received (per 10 deposited shares)</u>
Second year . . . . .	1
Sixth year . . . . .	2
Tenth year . . . . .	2

In addition, under Module 2 each participant may purchase 10 Bayer AG shares per year at a tax-free discount of DM 30.00 (€15.33) per share under the then market price. For income tax reasons, the participants must hold these shares for a minimum period of six years after purchase. Participants may not include shares that they purchase under Module 2 among the shares they deposit under Module 1.

The Group accounts for its share incentive programs under IAS as follows. For the Stock Option Program, the Stock Incentive Program and Module 1 of the Stock Participation Program, participants are entitled to receive shares of Bayer AG stock bought in the capital market, subject to certain performance criteria. The Group records compensation for potential share distributions when there is a reasonable basis on which to estimate whether the performance criteria will ultimately be met. Compensation expense is recorded at each balance sheet date by estimating the number of rights outstanding multiplied by the current quoted market price of Bayer AG shares. The Group recorded compensation expense and personnel provision of €8 million during the year ended December 31, 2000. For Module 2 of the Stock Participation Program, the Group records compensation for the spread between the quoted market price of the Bayer AG share and the discounted price paid by participants at the date of purchase. During the year ended December 31, 2000, the Group sold 275,368 shares to participants for a total price of €7.4 million, and recorded compensation expense of €4.2 million under this program. The percentage discount to the price of Bayer AG stock was 36.2%.

**Environmental Provisions**

The Group’s business is subject to extensive laws and regulations in the jurisdictions in which it does business and maintains properties. The Group’s compliance with environmental laws and regulations may require us to remove or mitigate the effects of the disposal or release of chemical substances at various sites. Under some of these laws and regulations, a current or previous owner or operator of property may be held liable for the costs of removal or remediation of hazardous substances on, under, or in its property, without regard to whether the owner or operator knew of, or caused the presence of the contaminants, and regardless of whether the practices that resulted in the contamination were legal at the time they occurred. As many of our production sites have an extended history of industrial use, it is impossible to predict precisely what effect these laws and regulations will have on us in the future.

As is typical for companies involved in the chemical and related industries, soil and groundwater contamination has occurred in the past at some of our sites, and might occur or be discovered at other sites.

We are subject to claims brought by United States Federal or State regulatory agencies and other private entities and individuals regarding the cleanup of sites that we own, formerly owned or operated, where materials were produced specifically for us by third party tollers or where waste from our operations was treated, stored or disposed. In particular, we have a potential liability under the U.S. Federal Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as “Superfund”, the U.S. Resource Conservation and Recovery Act and related state laws for investigation and clean-up costs at a number of sites. At most of these sites, numerous companies, including Bayer, have been notified that the U.S. Environmental Protection Agency, state governing body or private individuals consider such companies to be potentially responsible parties under Superfund or related laws. At other sites, Bayer is the sole responsible party. The proceedings relating to these sites are in various stages. The clean-up process at most sites is ongoing.

As of December 31, 2000 and 1999, we had reserved €230 million and €246 million, respectively, for environmental matters. The material components of the provisions for environmental remediation costs primarily relate to land reclamation, rehabilitating contaminated sites, recultivating landfills, and redevelopment and water protection measures. The provisions for environmental remediation costs are recorded on a discounted basis when

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

environmental assessments or clean-ups are probable, the costs can be reasonably estimated and no future economic benefit is expected. These provisions represent future remediation payments totaling €304 million which have been discounted at risk free rates of 0.5 percent to 5.5 percent to a recorded liability of €230 million. These discounted amounts will be paid out over the period of remediation for the application sites, which is expected to be 15 years. Costs are estimated based on significant factors such as: experience to date regarding corresponding environmental matters, environmental assessments, development of current costs and new circumstances with major influences on expenses, our understanding of current environmental laws and regulations, the number of other potentially responsible parties at each site and the identity and financial position of such parties in light of the joint and several nature of the liability, and the remediation methods expected to be employed.

It is difficult to estimate the future costs of environmental protection and remediation because of many uncertainties, including uncertainties about the status of laws, regulations and information related to individual locations and sites. Subject to the foregoing, but taking into consideration our experience to date regarding environmental matters of a similar nature and facts currently known, the Group believes that its reserves are adequate based upon currently available information. However, given the inherent difficulties in estimating liabilities in this area, it cannot be guaranteed that additional costs will not be incurred beyond the amounts accrued. It is possible that final resolution of these matters may require the Group to make expenditures in excess of established reserves, over an extended period of time and in a range of amounts that cannot be reasonably estimated. Management believes that such additional amounts, if any, would not have a material adverse effect on the Group's financial position, results of operations or cash flows.

### Legal Proceedings

Bayer is involved in a number of legal proceedings. As a global company active in a wide range of life sciences and chemical activities, we may in the normal course of our business become involved in proceedings relating to such matters as:

- product liability;
- patent validity and infringement disputes;
- tax assessments;
- competition and antitrust; and
- past waste disposal practices and release of chemicals into the environment.

We cannot predict with certainty the outcome of any proceedings in which we are or may become involved. An adverse decision in a lawsuit seeking damages from us could result in a monetary award to the plaintiff and, to the extent not covered by our insurance policies, could significantly harm our business or the results of our operations. If we lose a case in which we seek to enforce our patent rights, we could sustain a loss of future revenue as other manufacturers begin to market products we developed.

In the remainder of this subsection, we describe what we believe to be the most significant of the proceedings in which Bayer AG or its subsidiaries are currently involved.

#### ***Patent validity challenges and infringement proceedings; patent-related antitrust actions***

In the United States, Bayer AG and its U.S. subsidiary Bayer Corporation are plaintiffs or co-plaintiffs in a number of patent infringement actions against generic drug manufacturers. The lawsuits arose because these manufacturers filed applications in the United States for regulatory approval of generic versions of products containing the active ingredients ciprofloxacin or nifedipine marketed by Bayer or its licensees. Some of these actions have, in turn, given rise to lawsuits alleging that Bayer AG, Bayer Corporation and other parties had violated federal and state antitrust and similar statutes.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

Generic drug manufacturers may receive approval to market formerly patented products after all applicable patent protections have expired. A generic drug manufacturer may, however, attempt to avoid a patent prior to its scheduled expiry by attacking its validity or enforceability. In the United States, the Federal Food, Drug, and Cosmetics Act enables generic manufacturers wishing to market a bio-equivalent version of another manufacturer's product to seek regulatory approval by filing an Abbreviated New Drug Application (ANDA). In its ANDA, the applicant must state the basis on which it seeks to avoid any applicable patents.

One basis for seeking approval is a claim that the applicant's product does not infringe existing patent rights or that the patent is invalid or unenforceable. This claim is commonly known as a "paragraph IV certification" or "ANDA (IV)". Under the Act, the filing of a paragraph IV certification is deemed an infringement of patent rights. The Act permits the holder of the patent rights to file an infringement action against the ANDA applicant within 45 days of receiving notice of the paragraph IV certification. If the holder of the patent rights chooses not to file suit within this period, the FDA may approve the ANDA immediately. The filing of a suit, however, stays final FDA approval of the ANDA for a period of 30 months. The court may shorten or extend this period. If the court rules that the applicant's product will not infringe the patent or that the patent is invalid or unenforceable, the FDA may grant approval immediately. If, on the other hand, the court rules that the product will infringe the patent, the FDA may not grant final approval until the original patent has expired.

### *Ciprofloxacin-related actions*

*Patent-related actions.* In January 1997, Bayer AG and Bayer Corporation settled a patent infringement suit against Barr Laboratories, Inc. This suit arose when Barr filed an ANDA (IV) seeking regulatory approval of a generic form of Bayer's ciprofloxacin anti-infective product, which we sell in the United States under the trademark Cipro®. Under the settlement agreement, Barr and Rugby Laboratories Inc., another generic manufacturer that supported Barr during the infringement suit, agreed to dismiss the litigation, acknowledging the validity and enforceability of Bayer's patent rights, and we agreed to pay each company \$24.5 million. The agreement gave us the option, until our patent expires in 2003, to supply Barr and Rugby's then parent company Hoechst Marion Roussel Inc. with ciprofloxacin products which they could then market under a license from Bayer using a single trade name, or else to make quarterly cash payments. Since concluding the settlement agreement, we have opted to make payments. Shortly after settling this suit, we applied to the U.S. Patent and Trademark Office for a reexamination of our patent. The Patent and Trademark Office reissued the patent in February 1999.

In April 1999, Danbury Pharmacal Inc., an affiliate of Schein Pharmaceutical, Inc., filed an ANDA (IV) alleging that our ciprofloxacin patent was invalid. Mylan Pharmaceuticals, Inc., an affiliate of Mylan Laboratories, Inc., filed an ANDA (IV) challenging our ciprofloxacin patent in September 1999. To protect and enforce our patent rights, Bayer AG together with Bayer Corporation as licensee filed two lawsuits against Danbury Pharmacal and Schein Pharmaceutical and one lawsuit against Mylan Pharmaceuticals and Mylan Laboratories in 1999, and a second lawsuit against Mylan Pharmaceuticals and Mylan Laboratories in 2000. Reddy Cheminor, Inc. intervened as an additional defendant in the Danbury/Schein suits. All these suits were consolidated for pre-trial proceedings and trial before the U.S. federal District Court for the District of New Jersey.

In their responses, the defendants alleged the invalidity and unenforceability of our reexamined patent on several grounds. They then moved for summary judgment on the invalidity issue, and we filed a cross-motion for partial summary judgment.

If we lost our patent protection for ciprofloxacin, or if the expiration of the patent were accelerated to October 2002, we believe that we would forego significant revenue. We cannot predict the appellate court's decision in these cases with certainty. We intend to continue taking vigorous action to maintain our ciprofloxacin patent rights in the United States through their normal expiry in December 2003.

*Antitrust actions.* Bayer Corporation has been named as a defendant in 38 putative class action lawsuits, one individual lawsuit and one consumer protection group law suite filed in a number of state and federal courts

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

in the United States. Bayer AG has also been named as defendant in 20 of these cases, including the individual lawsuit and the consumer protection group lawsuit; it has been served with process in the individual lawsuit and twelve of the putative class action lawsuits. In addition, Barr Laboratories, Aventis S.A., Hoechst Marion Roussel, Inc., Rugby Laboratories, Inc. and Watson Pharmaceuticals, Inc. have each been named as defendant in one or more of these lawsuits. The plaintiffs in these suits allege that they are direct or indirect purchasers of Cipro® who were damaged because Bayer's settlement of the Barr ANDA (IV) litigation prevented generic manufacturers from selling a generic version of Cipro®. The plaintiffs allege that the defendants violated various federal antitrust and state business, antitrust, unfair trade practices and consumer protection statutes, and seek treble damages and injunctive relief.

These proceedings are at an early stage. None of the relevant courts has certified a class. The Judicial Panel for Multidistrict Litigation, or MDL Panel, transferred 35 of these cases to the U.S. federal District Court for the Eastern District of New York for coordinated pre-trial proceedings.

The Barr settlement is also the subject of ongoing antitrust investigations by the U.S. Federal Trade Commission and a number of state attorneys general.

Because these cases in the aggregate allege substantial unquantified damages and also seek treble and punitive damages and penalties, it is possible that the ultimate liability could be material to our results of operations and cash flows. Although we cannot predict the outcome of these cases with certainty, we believe that we have meritorious defenses to the antitrust allegations and intend to defend them vigorously.

### *Nifedipine-related actions*

*Patent-related actions.* Since 1997 Bayer AG and Bayer Corporation have been involved in a number of patent infringement actions arising from ANDA (IV)s filed by generic manufacturers seeking regulatory marketing approval for allegedly bio-equivalent versions of our brand-name product Adalat® CC and Pfizer, Inc.'s brand-name product Procardia® XL. The active ingredient of these products is nifedipine. We own patent rights related to nifedipine drug product formulations. In addition, because Pfizer markets Procardia® XL under a license from Bayer, Bayer AG and Bayer Corporation became Pfizer's co-plaintiffs in the infringement actions relating to that product.

In August 1997 Bayer AG and Bayer Corporation filed a patent infringement suit against Elan Pharmaceutical Research Corp. and Elan's parent company, Elan Corp., plc, arising from Elan's ANDA (IV) for a drug product containing nifedipine. In March 1999, the U.S. federal District Court for the Northern District of Georgia granted summary judgment against us, holding that the particular generic product for which Elan sought marketing approval as described in its ANDA would not violate our patent. In May 2000, the U.S. Court of Appeals for the Federal Circuit affirmed this decision.

Bayer AG and Bayer Corporation have also filed four ANDA (IV) related lawsuits against Biovail and two lawsuits arising from the commercial sale of nifedipine products by Biovail and Teva. These suits are currently pending before the U.S. federal District Court for the District of Puerto Rico. The court has stayed these suits pending resolution of the appeals before the Federal Circuit.

Because defendants have prevailed in some of these lawsuits, it is possible that they may also prevail in the trials and appeals currently pending. We believe, however, that we have meritorious claims in the pending cases, and intend to prosecute these claims vigorously. Because some of our nifedipine dosages have already begun to face generic competition, we do not believe that an adverse result in the pending cases would result in a material amount of additional foregone revenue.

*Antitrust actions.* Biovail has filed an antitrust lawsuit against Bayer AG, Bayer Corporation and Pfizer in the U.S. federal District Court for the District of Western Pennsylvania. Biovail is seeking a declaratory judgment that Bayer's nifedipine patents are invalid. Biovail also seeks damages under federal and state antitrust statutes alleging, among other things, that Bayer illegally asserted its patent rights. The district court has stayed this litigation pending resolution of the nifedipine-related patent infringement actions against Biovail.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

This proceeding is at an early stage. However, we believe that we have meritorious defenses to the antitrust allegations, and we intend to defend this case vigorously.

### *Product liability proceedings*

*HIV-related actions.* During the past decade, our U.S. subsidiary Bayer Corporation, as well as other fractionators of plasma products, have been involved in lawsuits alleging that hemophiliacs became infected with the human immunodeficiency virus (HIV), or ultimately developed AIDS, by using clotting factor concentrates derived from human plasma. Plaintiffs have brought actions on these grounds in the United States, Ireland, Italy, Taiwan, Argentina, Canada, Japan, and Germany.

In the United States, a class action against Bayer Corporation and three other defendants consolidated the HIV-related claims of more than 6,000 claimants and claimant groups. The parties resolved this class action through a \$600 million settlement. Bayer Corporation's share of this settlement was approximately \$290 million. Bayer Corporation has also satisfactorily settled nearly 400 lawsuits by plaintiffs who opted out of the class action. Approximately 20 suits remain pending in the United States. Although Bayer Corporation has prevailed in the majority of cases that have proceeded to trial, plaintiffs were successful in three cases. The juries in each of these cases awarded damages not exceeding \$2 million. In addition, in 1999 a Louisiana jury awarded a plaintiff damages of \$35 million. However, the trial court set this award aside, and an appellate court upheld this decision. Bayer Corporation has since settled this matter in the context of a group settlement of nearly 100 Louisiana cases, of which Bayer Corporation's share was less than \$50 million.

Although Bayer Corporation intends to defend aggressively the remaining HIV-related lawsuits in various countries, we have made what we believe to be appropriate provisions should these suits result in judgments in favor of the plaintiffs. These provisions are not material to the Bayer Group.

### *Proceedings relating to the World War II era*

Bayer AG was one of a number of defendants in ten class actions filed in recent years before various U.S. federal courts and consolidated in 2000 before the federal District Court for the District of New Jersey. These suits sought class certification on behalf of persons — primarily residents of Eastern European countries — alleging that these persons were victims of forced labor during World War II or medical experiments during the period of national socialist rule prior to and during the war. In addition, one suit related to medical experiments named Bayer AG as sole defendant. The plaintiffs sought unspecified amounts of damages. No class was certified.

In July 2000, the United States, Germany, Israel and several Eastern European states concluded an Executive Agreement providing for the establishment of a federal German foundation to serve as the exclusive source of remedies for all present and future claims that have been or may be asserted against German companies arising out of the national socialist era and World War II. This foundation, called "Remembrance, Responsibility, and the Future", was established by German law in August 2000. Its founders are the German government and a number of German companies, among them Bayer AG. The foundation administers a fund in the amount of DM 10 billion, made available by the German public sector and by German companies, including Bayer AG. The portion of the fund to be contributed by German companies totals DM 5 billion.

In 2000, we transferred Bayer's DM 100 million contribution to the fund to the foundation's escrow account. In addition, the founding members of the foundation initiative, including Bayer, committed themselves jointly to cover any shortfall if German companies failed to contribute their full DM 5 billion portion of the fund.

It is a central element of the Executive Agreement that the foundation may begin payments only when all pending lawsuits are voluntarily dismissed with prejudice, thereby creating legal certainty (*Rechtssicherheit*). Accordingly, the federal District Court for the District of New Jersey dismissed the suits described above in November 2000.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

Under the Executive Agreement, the government of the United States has committed itself to file a “statement of interest” in any new lawsuits filed before a U.S. court against German companies in connection with national socialist era and World War II-related claims, recommending that the court dismiss the suit. Although the doctrine of separation of powers prevents the U.S. government from compelling the court to comply with its statement of interest, we believe that the probability of any future suit progressing beyond the filing stage is therefore remote.

In addition to the specific items discussed above, the Group is involved in various other legal proceedings and claims that have arisen in the ordinary course of business, such as matters relating to product liability, patent validity and infringement, tax assessments, competition and antitrust and past waste disposal practices and release of chemicals into the environment.

These cases and claims raise difficult and complex legal issues and are subject to many uncertainties and complexities, including, but not limited to, the facts and circumstances of each particular case and claim, the jurisdiction in which each suit is brought, and differences in applicable law. Upon resolution of any pending legal matters, Bayer may incur charges in excess of presently established provisions and related insurance coverage. It is possible that the Group’s results of operations and cash flows could be materially affected by an ultimate unfavorable outcome of certain pending litigation. Management believes that it is unlikely that the ultimate outcome of such pending litigation will be decided unfavorably to the Group. Accordingly, in the opinion of Management the outcome of legal proceedings will not have a material adverse effect on Bayer’s financial position, profitability or liquidity.

### Restructuring charges

The Group recorded restructuring charges in conjunction with the reorganization of the Styrenics business and the integration of the acquired Chiron group in the Diagnostic business. Charges concerning Styrenics were primarily related to intangible and tangible fixed asset write-offs, for which the Group directly reduced the value of the assets in the consolidated balance sheet. Charges for the Chiron restructuring plan were related to continuing operations, including the reduction of excess staffing, the streamlining of facilities and operations and other restructuring measures.

The total charges incurred for restructuring programs during 1999 were €449 million of which €76 million were accrued and are expected to be used as the related actions under the plans are completed. €255 million of the charges were related to impairments of intangible assets and fixed assets for which the Group directly reduced the value of the assets in the consolidated balance sheet. The remaining €194 million of the charges were related to employee terminations with €105 million and to other third party costs with €89 million where the Group used the amounts during the same period in which they were charged to the income statement.

Charges of €169 million were incurred during 1999 in conjunction with the restructuring of our Styrenics business, mainly in Belgium and in the U.S. Charges of €133 million were related to impairments of intangible and tangible assets. The remaining €36 million of the charges were related to other third party costs.

Further charges of €111 million were incurred during 1999 in conjunction with the restructuring of the Diagnostics businesses worldwide. The charges included employee termination costs of €57 million, tangible fixed assets impairments of €45 million and other third party costs of €9 million. Approximately 600 production, administration and sales employees were identified in the original plan, 560 of whom have left the Group as of December 31, 2000.

Pharmaceutical resolved measures to increase efficiency by a worldwide restructuring program incurring expenses of €38 million. These charges consist of employee termination costs (€11 million), other third party costs (€19 million) and tangible fixed assets write-offs (€8 million).

Charges of €35 million were incurred during 1999 in conjunction with the restructuring of the Elkhart Consumer Care operations in the U.S. The charges included employee termination costs of €27 million, tangible fixed asset impairments of €4 million and other third party costs of €4 million.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

The other charges of €96 million incurred during 1999 were attributable to several smaller programs, the largest of which was a €28 million charge in conjunction with the downsizing of our Animal Health facilities in the U.S.

The total charges incurred for restructuring programs during 2000 were €200 million of which €91 million were accrued and are expected to be used as the related actions under the plans are completed. The total charges are related with €59 million to employee termination, with €51 million to impairments of intangible and tangible fixed assets and with €90 million to other third party costs.

Charges of €61 million were incurred during 2000 in conjunction with the ongoing restructuring of the Diagnostics businesses worldwide. The charges included employee termination costs of €27 million, other third party costs of €30 million and tangible fixed assets impairments of €4 million.

Charges of €48 million were incurred during 2000 in conjunction with the acquisition of Lyondell. The charges included employee termination costs of €13 million, other third party costs of €29 million and tangible fixed assets impairment of €6 million. Of the 2000 charges most of the employee termination costs and other third party costs remain to be paid during 2001 and additional restructuring charges will be incurred in 2001.

In conjunction with the further restructuring of our Styrenics business additional charges of €32 million incurred in 2000 which related to depreciation of fixed assets amounting to €23 million and to employee termination costs of €9 million.

The ongoing restructuring program of our Pharmaceutical business group to increase efficiency caused further employee termination charges of €6 million, other third party costs of €14 million and €6 million for impairment of fixed assets.

Further accrued charges for restructuring of €33 million were attributable to several smaller programs.

The movement in restructuring provisions is as follows:

	<u>Employee termination costs</u>	<u>Tangible fixed asset impairment</u>	<u>Other third party costs</u>	<u>Total</u>
	(€ million)			
<b>Balance at January 1, 1999</b> .....	27	2	61	90
Additions .....	105	255	89	449
Cash payments .....	(87)	—	(109)	(196)
Reclassification to fixed assets .....	—	(249)	—	(249)
Translation gain (loss), net .....	5	1	6	12
<b>Balance at December 31, 1999</b> .....	50	9	47	106
Additions .....	59	51	90	200
Cash payments .....	(26)	—	(108)	(134)
Reclassification to fixed assets .....	—	(47)	—	(47)
Translation gain (loss), net .....	3	—	3	6
<b>Balance at December 31, 2000</b> .....	<u>86</u>	<u>13</u>	<u>32</u>	<u>131</u>

### Tangible fixed asset impairments

Based on the review of the carrying values of tangible fixed assets, write-downs are recorded for tangible fixed assets impaired or related to activities to be restructured, divested or abandoned. The provision is transferred to accumulated depreciation as the tangible fixed assets are restructured, divested or abandoned.

### Other third party costs

Other third party costs are mainly associated with other obligations due to the abandonment of certain facilities.

Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

[30] Financial obligations

Financial obligations are carried at nominal or redemption value, whichever is higher. They comprise the following:

	Dec. 31, 2000		Dec. 31, 1999	
	Total	Maturing in 2001	Total	Maturing in 2000
	(€ million)			
Debentures	2,168	283	1,809	10
Liabilities to banks	1,458	932	1,959	1,658
Liabilities under lease agreements	199	34	181	23
Liabilities from the issuance of promissory notes	2	2	1	1
Commercial paper	1,812	1,812	314	314
Other financial obligations	1,026	799	202	101
	<u>6,665</u>	<u>3,862</u>	<u>4,466</u>	<u>2,107</u>

As at December 31, 2000, scheduled maturities of financial obligations in 2002, 2003, 2004, 2005 and thereafter were €885 million, €94 million, €23 million, €288 million, and €1,513 million, respectively.

The financial obligations are predominantly in U.S. dollars, which account for €4.0 billion (1999: €2.5 billion). U.S. dollar borrowings represent 61 percent (1999: 55 percent) of total financial obligations.

Short-term borrowings (excluding the short-term portion of debentures) amounted to €3,579 million (1999: €2,097 million) with a weighted average interest rate of 6.6 % (1999: 6.0 %). Bayer Group's financial obligations are primarily unsecured and of equal priority.

Effective Rate	Stated Rate		Volume	Dec. 31, 2000	Dec. 31, 1999
(€ million)					
<b>Bayer Capital Corporation B.V.</b>					
2,820%	2,500%	Bonds with Warrants Attached 1987/2002	CHF 250.0 million	164	156
<b>Bayer Corporation</b>					
6.585%	6.500%	Notes 1995/2002	USD 400.0 million	430	398
7.274%	7.125%	Notes 1995/2015	USD 200.0 million	215	199
6.784%	6.750%	Notes 1996/2001	USD 250.0 million	269	249
6.560%	2.250%	Bonds 1997/2002	CHF 200.0 million	131	125
3.500%	3.500%	Revenue Bonds 1997/2009	USD 20.6 million	22	20
4.000%	4.000%	Revenue Bonds 1997/2027	USD 25.0 million	27	25
6.745%	6.650%	Notes 1998/2028	USD 350.0 million	376	348
6.077%	6.200%	Bonds 1998/2028	USD 250.0 million	269	249
<b>Bayer Ltd., Japan</b>					
3.871%	3.750%	Bonds 2000/2005	CHF 400.0 million	239	0
<b>Other debentures</b>				26	40
				<u>2,168</u>	<u>1,809</u>

Other debentures are due between 2000 and 2011; their average interest rate is 10.9 percent.

In July 1987, Bayer Capital Corporation B.V. issued CHF 250 million of 2.50 % Bonds with warrants in Switzerland. The Bonds have a term of 15 years and mature in July 2002. The issue price of the Bonds was 100%, and interest is paid annually in July. The warrants attached expired on August 28, 1997.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

In October 1995, Bayer Corporation issued USD 400 million of 6.50% Notes to qualified institutional buyers. The Notes have a term of 7 years and mature in October 2002. Interest is paid semi-annually in April and October. The Group recorded a discount of USD 2.7 million, which includes commissions paid to underwriters.

In October 1995, Bayer Corporation issued USD 200 million of 7.125% Notes to qualified institutional buyers. The Notes have a term of 20 years and mature in October 2015. Interest is paid semi-annually in April and October. The Group recorded a discount of USD 2.4 million, which includes commissions paid to underwriters.

In October 1996, Bayer Corporation issued USD 250 million of 6.75% Notes to non-U.S. institutional and retail buyers. The Notes have a term of 5 years and mature in October 2001. Interest is paid annually in October 1. The Group recorded a discount of USD 1.3 million, which includes dealer commissions.

In April 1997, Bayer Corporation issued CHF 200 million of 2.25% Bonds in Switzerland. The Bonds have a term of 5 years and mature in April 2002. Interest is paid annually in April. The Group recorded a discount of USD 0.4 million, which includes commissions paid to underwriters. This debt was swapped into U.S. Dollars at a floating interest rate. At December 31, 2000, the effective U.S. dollar interest rate was 6.56%.

In March 1997, Bayer Corporation issued USD 20.6 million of Revenue Bonds to U.S. institutional buyers. The interest rate is reset daily with monthly interest payments. The Revenue Bonds have a term of 12 years and mature in May 2009.

In May 1997, Bayer Corporation issued USD 25 million of Revenue Bonds to U.S. Institutional Buyers. The interest rate is reset daily with monthly interest payments. The Revenue Bonds have a term of 20 years and mature in May 2027.

In February 1998, Bayer Corporation issued USD 350 million of 6.65% Notes to qualified institutional buyers. The Notes have a term of 30 years and mature in February 2028. Interest is paid semi-annually in August and February. The Group recorded a discount of USD 1.9 million, which includes commissions paid to underwriters. The Notes will be redeemable, in whole or in part, at the option of Bayer Corporation at any time, upon less than 30 but not more than 60 days' notice, at a redemption price equal to the greater of (i) 100% of the principal amount or (ii) as determined by an independent investment banker.

In February 1998, Bayer Corporation issued USD 250 million of 6.20% Bonds to qualified institutional buyers. The Bonds have combined call and put options giving the lead manager the right to repurchase them, and the investors the right to cash them, after 10 years. At that time the lead manager can reset the interest rate and remarket the Bonds for a further period of 20 years such that they would mature in 2028. If the lead manager does not exercise its call option and the investors exercise their put option, the Bonds will be redeemed in 2008. Interest is paid semi-annually in August and February. The Group recorded a discount of USD 0.6 million which includes commissions paid to underwriters. The redemption provision on the 1998 6.65% Notes also applies for these bonds.

In April 2000, Bayer Ltd. Japan issued CHF 400 million of 3.75% Bonds in Switzerland. The Bonds have a term of 5 years and mature in April 2005. Interest is paid annually in April. The Group recorded a discount of CHF 1.2 million.

At December 31, 2000, the Group had approximately €5.6 billion of total lines of credit, of which €1.5 billion were used and €4.1 billion were unused and available for borrowing on an unsecured basis.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

Liabilities under finance leases are recognized as financial obligations, if the leased assets are capitalized under property, plant and equipment. They are stated at present values. Lease payments totaling €285 million (1999: €277 million), including €86 million (1999: €96 million) in interest, are to be made to the respective lessors in future years. The liabilities associated with finance leases mature as follows:

	As of <u>December 31, 2000</u> (€ million)
2001 .....	44
2002 .....	38
2003 .....	28
2004 .....	16
2005 .....	18
After 2005 .....	<u>141</u>
Total minimum lease payments .....	285
Of which interest portion .....	<u>(86)</u>
	199
Current portion .....	34
Long-term portion .....	165

For operating leases, the Company incurred rent expense of €162 million, €154 million, and €171 million during 2000, 1999 and 1998, respectively.

The other financial obligations include €42 million (1999: €43 million) to non-consolidated subsidiaries.

### [31] Trade accounts payable

Trade accounts are payable mainly to third parties; they are carried at nominal or redemption value, whichever is higher.

Trade accounts payable as of December 31, 2000 include €2,013 million (1999: €1,556 million) maturing within one year and €3 million (1999: €0 million) maturing after one year. Of the total, €8 million (1999: €6 million) is payable to subsidiaries, €16 million (1999: €12 million) to other affiliated companies and €1,992 million (1999: €1,538 million) to other suppliers.

### [32] Miscellaneous liabilities

Miscellaneous liabilities are carried at nominal or redemption value, whichever is higher. The individual items are as follows:

	Dec. 31, 2000		Dec. 31, 1999	
	Total	Maturing in 2001	Total	Maturing in 2000
	(€ million)			
Payroll liabilities .....	537	422	526	419
Tax liabilities .....	291	289	209	206
Liabilities for social expenses .....	114	114	126	125
Accrued interest on liabilities .....	73	46	79	54
Advance payments received .....	24	24	28	28
Liabilities from the acceptance of drafts .....	14	14	10	10
License liabilities .....	32	32	26	26
Other miscellaneous liabilities .....	<u>1,385</u>	<u>1,333</u>	<u>1,029</u>	<u>933</u>
	<u>2,470</u>	<u>2,274</u>	<u>2,033</u>	<u>1,801</u>

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

### [33] Further information on other liabilities

Other liabilities (financial obligations, trade accounts payable and miscellaneous liabilities) include €1,636 million (1999: €1,071 million) maturing in more than five years.

The amount secured — mainly by mortgages — is €283 million (1999: €43 million). The secured amounts included collateral of €256 million for land and buildings.

Included is €123 million (1999: €85 million) in accrued interest, representing expenses attributable to the fiscal year but not due to be paid until after the closing date.

### [34] Deferred income

In accordance with IAS 20 (Accounting for Government Grants and Disclosure of Government Assistance), grants and subsidies that serve to promote investment are reflected in the balance sheet as deferred income. The amounts are gradually reversed during the useful lives of the respective assets and recognized in income.

The main component of deferred income as of December 31, 2000 comprises €113 million (1999: €125 million) in such grants and subsidies received from governments; the amount reversed and recognized in income in 2000 was €13 million (1999: €16 million).

### [35] Discontinuing operations

Assets and liabilities include the following amounts pertaining to the discontinuing operations of Fibers, Erdölchemie and DyStar:

	December 31,							
	Fibers		Erdölchemie		DyStar		Total	
	2000	1999	2000	1999	2000	1999	2000	1999
	(€ million)							
Noncurrent assets . . . . .	143	149	200	121	89	91	432	361
Current assets (excluding liquid assets)	195	160	199	141	320	278	714	579
Liquid assets . . . . .	—	—	—	—	11	10	11	10
<b>Assets</b> . . . . .	<u>338</u>	<u>309</u>	<u>399</u>	<u>262</u>	<u>420</u>	<u>379</u>	<u>1,157</u>	<u>950</u>
Pension provisions . . . . .	53	50	59	60	16	17	128	127
Other provisions . . . . .	35	31	39	41	28	23	102	95
Financial obligations . . . . .	—	—	5	6	76	122	81	128
Remaining liabilities . . . . .	<u>82</u>	<u>33</u>	<u>59</u>	<u>57</u>	<u>122</u>	<u>36</u>	<u>263</u>	<u>126</u>
<b>Liabilities</b> . . . . .	<u>170</u>	<u>114</u>	<u>162</u>	<u>164</u>	<u>242</u>	<u>198</u>	<u>574</u>	<u>476</u>

### [36] Commitments and Contingencies

Contingent liabilities as of December 31, 2000 — almost all of which exist toward third parties — amounted to €215 million. They result from:

	Dec. 31, 2000	Dec. 31, 1999
	(€ million)	
Issuance and endorsement of bills . . . . .	<u>23</u>	<u>21</u>
Guarantees . . . . .	<u>44</u>	<u>30</u>
Warranties . . . . .	<u>148</u>	<u>161</u>
	<u>215</u>	<u>212</u>

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

The respective items refer to potential future obligations where the occurrence of the future events would create an obligation, the existence of which is uncertain at the balance sheet date. The warranties mainly relate to the terms customarily existing in the ordinary course of business.

In addition to provisions, other liabilities and contingent liabilities, there are other financial commitments resulting primarily from long-term lease and rental agreements.

Minimum non-discounted future lease payments associated with operating leases total €598 million (1999: €574 million). The commitments under lease and rental agreements mature as follows:

	<u>€ million</u>
2001 .....	189
2002 .....	114
2003 .....	81
2004 .....	65
2005 .....	56
after 2005 .....	<u>93</u>
	<u>598</u>

Financial commitments resulting from orders already placed under purchase agreements related to planned or ongoing capital expenditure projects total €446 million (1999: €391 million); the payments concerned are due almost entirely in 2001.

The Group has entered into long-term research agreements with various third parties under which Bayer will fund various research projects (approximately €349 million) and other commitments based upon the achievement of certain milestones or other specific conditions (approximately €334 million). As of December 31, 2000, the estimated payments to these parties, assuming the milestones or other conditions are met are as follows:

	<u>€ million</u>
2001 .....	168
2002 .....	140
2003 .....	130
2004 .....	52
2005 .....	54
After 2005 .....	<u>139</u>
	<u>683</u>

Further financial commitments result from possible future acceptances of part-time work arrangements offered to older employees under collective agreements.

### [37] Related Parties

Related parties with whom Bayer AG and its affiliates had transactions consist of unconsolidated subsidiaries and associates accounted for under the equity method. These transactions mainly include sales and purchases performed on an arm's length basis. These transactions also include long-term leases and certain contractual and support arrangements with our equity investee Agfa. The related receivables and payables have been included in the respective notes to the financial statements as required by the German commercial code. The revenue and expenses related to these transactions are immaterial to the consolidated financial statements taken as a whole.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

### [38] Financial instruments

Financial instruments entail contractual claims on financial assets. Under IAS 32 (Financial Instruments: Disclosure and Presentation), financial instruments include both primary instruments, such as trade accounts receivable and payable, investments, and financial obligations; and derivative financial instruments, which are used to hedge risks arising from changes in currency exchange and interest rates.

#### Primary financial instruments

Primary financial instruments are reflected in the balance sheet. Those on the asset side are recognized at nominal value less any necessary write-downs; financial instruments constituting liabilities are carried at nominal or redemption value, whichever is higher.

#### Fair value

The fair value of a primary financial instrument is the price at which it could be exchanged in a current transaction between knowledgeable, willing parties in an active market. The fair values of other affiliated companies (€1,443 million, 1999: €637 million), other securities (€153 million; 1999: €127 million) included in investments and marketable securities (€247 million; 1999: €376 million) are derived from their market prices. Financial obligations are valued mainly on the basis of quoted prices, or in some cases by discounting future cash flows. Their total fair value is €156 million (1999: €86 million) less than their carrying value. The remaining receivables and liabilities and the liquid assets have such short terms that there is no significant discrepancy between their fair and carrying values.

#### Credit risk

Credit risk arises from the possibility of asset impairment occurring because counterparties cannot meet their obligations in transactions involving financial instruments.

Since we do not conclude master netting arrangements with our customers, the total of the amounts recognized in assets represents the maximum exposure to credit risk.

#### Currency risk

Currency risk is the potential decline in the value of financial instruments due to exchange rate fluctuations. Exposure to currency risk arises mainly when receivables and payables are denominated in a currency other than the company's local currency or will be denominated in such a currency in the planned course of business.

Such risks may be naturally hedged, as when a receivable in a given currency is matched, for example between Group companies, by one or more payables in the same amount, and having an equivalent term, in the same currency. They may also be hedged using derivative financial instruments.

All currency risks arising on financial transactions, including interest, are generally fully hedged. The instruments used are mainly currency swaps, interest and principal currency swaps and forward exchange contracts. Currency risks relating to operating activities are systematically monitored and analyzed. The level of hedging is regularly reviewed. At the end of 2000, the situation was as follows:

	<b>Dec. 31, 2000</b>	<b>Dec. 31, 1999</b>
	(€ million)	
Primary asset instruments exposed to currency risk . . . . .	2,813	2,774
Primary liability instruments exposed to currency risk . . . . .	2,159	913
Amount naturally hedged . . . . .	(1,102)	(784)
Amount hedged through derivative financial instruments . . . . .	<u>(2,205)</u>	<u>(2,220)</u>
<b>Residual unhedged currency exposure . . . . .</b>	<u><u>1,665</u></u>	<u><u>683</u></u>

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

As of 2000, some anticipated or pending transactions have also been hedged to reduce the otherwise substantial exposure. At December 31, 2000 the total notional amount of the contracts concerned — mainly forward exchange contracts for the sale of U.S. dollars or Japanese yen and all maturing before December 31, 2001 — was €1,299 million, which is not included in the hedged amount of €2.2 billion. The €95 million positive fair value of these contracts is not recognized in income.

On the asset side, 60 percent (1999: 80 percent) of currency risks relate to the U.S. dollar and 8 percent (1999: 8 percent) to the Japanese yen. On the liabilities side, 51 percent (1999: 71 percent) of foreign currency risks relate to the U.S. dollar, while only 3 percent (1999: 19 percent) now relate to DM/euro risks of subsidiaries domiciled outside the euro zone; the remaining exposure involves liabilities in British pounds (4 percent; 1999: 2 percent) and a number of other currencies outside the dollar and euro zones. The U.S. dollar accounts for 70 percent (1999: 82 percent) of the asset volume hedged through derivative financial instruments, while the yen accounts for 15 percent (1999: 9 percent). Of the hedged liabilities, 73 percent (1999: 85 percent) are in U.S. dollars, 3 percent (1999: 2 percent) in yen and 24 percent (1999: 13 percent) in other currencies. The need for hedging within the euro zone ceased at the beginning of 1999 due to the permanent fixing of exchange rates.

The other securities included in investments are almost exclusively denominated in the currency used by the Group company making the investment, so no currency risk is involved. Similarly, the other loans are made only to borrowers in the same currency zone. Where intragroup loans exposed to currency risk have no natural hedge, they are hedged through derivative financial instruments.

### Interest rate risk

An interest rate risk — the possibility that the value of a financial instrument will change due to movements in market rates of interest — applies mainly to receivables and payables with maturities of over one year.

Items with such long maturities are not of material significance on the operating side but are relevant in the case of investments and financial commitments. Here, derivative financial instruments are used as the main method of interest rate hedging, though in some cases interest rate risk is not hedged if attractive fixed interest rates can be obtained.

The other securities included in investments are mostly floating rate investments at market rates of interest. Interest rate swaps are not used to convert floating rate investments into fixed rate investments.

The other loans chiefly comprise loans to employees, generally at market-oriented, fixed interest rates. Such loans are exposed to an interest rate risk which, however, is not hedged since it was entered into for specific reasons. More than three-quarters of employee loans are for terms of more than five years.

### Derivative financial instruments

The derivatives we use are mainly over-the-counter instruments, particularly forward exchange contracts, option contracts, interest rate swaps, and interest and principal currency swaps. We deal only with banks of high credit standing. The instruments are employed according to uniform guidelines and are subject to strict internal controls. Their use is confined to the hedging of the operating business and of the related investments and financing transactions.

### Market risk

Market risk arises from the fact that the value of financial instruments may be positively or negatively affected by fluctuating prices on the financial markets. The fair values quoted are the current values of the derivative financial instruments, disregarding any opposite movements in the values of the respective hedged transactions. The fair value is the repurchase value of the derivatives on the closing date, based on quoted prices or determined by standard methods. The notional amount is the total value of the hedged purchase and sale transactions.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

The notional amounts and fair values of the derivative financial instruments held at the closing date were as follows:

	Notional amount		Fair value	
	Dec. 31, 2000	Dec. 31, 1999	Dec. 31, 2000	Dec. 31, 1999
	(€ million)			
Forward exchange contracts . . . . .	3,219	2,172	145	(90)
Currency options . . . . .	87	62	1	(1)
Currency swaps . . . . .	196	165	(12)	5
Interest rate hedging contracts (including interest and principal currency swaps) . . . . .	3,495	2,664	(133)	(49)
	<u>6,997</u>	<u>5,063</u>	<u>1</u>	<u>(135)</u>

Gains and losses from changes in fair values are offset — wherever possible — against corresponding losses and gains from operating activities. Provisions are established for excess losses from operating activities; excess gains are not recognized.

### Credit risk

Credit risk exposure is €227 million (1999: €30 million), this amount being the total of the positive fair values of derivatives that give rise to claims against the other parties to the instruments. It represents the losses that could result from non-performance of contractual obligations by these parties. We minimize this risk by imposing a limit on the volume of business in derivative financial instruments transacted with individual parties.

### Currency risk

Exchange hedging instruments in the notional amount of €3.3 billion (1999: €2.2 billion) mature within one year, while instruments in the amount of €0.2 billion (1999: €0.2 billion) have longer remaining terms.

### Interest rate risk

Short-term interest rate hedging contracts (including interest and principal currency swaps) total €0.3 billion (1999: €1.3 billion); those maturing after more than one year total €3.2 billion (1999: €1.4 billion).

## Notes to the Statements of Cash Flows

### [39] Net cash provided by operating activities

The cash flow statement starts from the operating result. The gross cash flow of €4.2 billion (1999: €3.2 billion; 1998: €3.3 billion) is the cash surplus from operating activities before any changes in working capital. Breakdowns of the gross cash flow by business segment and by region are given in the table on pages F21-F24. The net cash flow of €3.1 billion (1999: €3.2 billion; 1998: €2.8 billion) takes account of changes in working capital.

### [40] Net cash provided by (used in) investing activities

Additions to property, plant and equipment and intangible assets resulted in a cash outflow of €2.6 billion in 2000 (1999: €2.6 billion; 1998: €2.7 billion). Cash outflows for acquisitions amounted to €4.1 billion (1999: €0.3 billion; 1998: €1.4 billion). Sales of property, plant and equipment led to a cash inflow of €0.3 billion (1999: €0.1 billion; 1998: €0.5 billion), while that from interest and dividend receipts and from marketable securities also amounted to €0.3 billion (1999: €0.4 billion; 1998: €0.4 billion).

Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

[41] Net cash provided by (used in) financing activities

The increase in the Group's net borrowings in 2000 resulted in a net cash inflow of €2.1 billion (1999: cash outflow of €0.6 billion; 1998: cash inflow of €0.9 billion). Our stockholders received a total dividend payment of €1.0 billion for the 1999 fiscal year (1999: €0.8 billion; 1998: €0.7 billion). Interest paid in 2000 amounted to €0.3 billion (1999: €0.3 billion; 1998: €0.3 billion).

[42] Discontinuing operations

Discontinuing operations affected the Group cash flow statements as follows:

	Fibers			Erdölchemie			DyStar			Agfa		Total		
	2000	1999	1998	2000	1999	1998	2000	1999	1998	1999	1998	2000	1999	1998
	(€ million)													
Net cash provided by operating activities	114	35	94	38	39	77	66	35	6	167	425	218	276	602
Net cash provided by (used in) investing activities	(29)	(62)	(67)	(87)	(62)	(138)	(65)	(16)	(19)	2,613	(144)	(181)	2,473	(368)
Net cash provided by (used in) financing activities	—*	—*	(7)	—	(1)	—	18	(28)	13	—	28	18	(29)	34
<b>Change in cash and cash equivalents</b>	<u>85</u>	<u>(27)</u>	<u>20</u>	<u>(49)</u>	<u>(24)</u>	<u>(61)</u>	<u>19</u>	<u>(9)</u>	<u>0</u>	<u>2,780</u>	<u>309</u>	<u>55</u>	<u>2,720</u>	<u>268</u>

\* Less than €1 million.

[43] Cash and cash equivalents

Cash and cash equivalents as of December 31, 2000 amounted to €0.5 billion (1999: €2.8 billion; 1998: €1.2 billion). The liquid assets of €0.7 billion (1999: €3.1 billion; 1998: €1.7 billion) shown in the balance sheet also include marketable securities and other instruments.

[44] U.S. GAAP Information

The Group's consolidated financial statements have been prepared in accordance with IAS, which as applied by the Group, differs in certain significant respects from U.S. GAAP. The effects of the application of U.S. GAAP to net income and stockholders' equity are set out in the tables below:

	Notes	2000 (\$ million(1))	2000 (€ million)	1999 (€ million)
<b>Net income reported under IAS</b>		1,539	1,816	2,002
Fair value of derivative financial instruments	a	81	95	—
Available for sale securities	b	—	—	—
Business combinations	c	(108)	(128)	(54)
Pensions	d	(20)	(24)	(24)
Other	e	28	33	54
Deferred tax effect on U.S. GAAP adjustments		(8)	(9)	(11)
<b>Net income reported under U.S. GAAP</b>		<u>1,512</u>	<u>1,783</u>	<u>1,967</u>
<b>Basic and diluted earnings per share under U.S. GAAP</b>		<u>2.07</u>	<u>2.44</u>	<u>2.69</u>

Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

	Notes	December 31,		
		2000	2000	1999
		(\$ million(1))	(€ million)	(€ million)
<b>Stockholders' equity reported under IAS</b> .....		13,677	16,140	15,006
Fair value of derivative financial instruments.....	a	81	95	—
Available for sale securities.....	b	1,158	1,366	580
Business combinations.....	c	697	822	902
Pensions.....	d	936	1,105	1,138
Other.....	e	92	109	75
Deferred tax effect on U.S. GAAP adjustments.....		(447)	(527)	(524)
<b>Stockholders' equity reported under U.S. GAAP</b> .....		<u>16,194</u>	<u>19,110</u>	<u>17,177</u>

	December 31,		
	2000	2000	1999
	(\$ million(1))	(€ million)	(€ million)
<b>Components of stockholders' equity in Accordance with U.S. GAAP:</b>			
Capital stock of Bayer AG.....	1,585	1,870	1,870
Capital reserves of Bayer AG.....	2,493	2,942	2,942
Retained earnings.....	10,586	12,492	11,636
Accumulated other comprehensive income:			
— Unrealized market value adjustment on securities available for sale (net of taxes of \$12 million, €14 million, and €15 million).....	1,145	1,352	565
— Additional minimum pension liability (net of taxes of \$76 million, €90 million, and €92 million).....	(105)	(124)	(126)
— Translation differences.....	490	578	290
<b>Total</b> .....	<u>16,194</u>	<u>19,110</u>	<u>17,177</u>

(1) The 2000 U.S. dollar figures have been translated at an exchange rate of \$0.8474 = €1.00. Such translations should not be construed as representations that the euro amounts represent, or have been or could be converted into, United States dollars at that or any other rate.

**a. Fair Value of Derivative Financial Instruments**

Under IAS, the Group applies hedge accounting to derivative financial instruments relating to currency risks on anticipated or pending transactions. In accordance with the U.S. GAAP guidance applicable through December 31, 2000, these instruments are marked to market through the income statement. The difference between IAS and U.S. GAAP net income for the year ended December 31, 2000 arises from the recognition of a gain, and a corresponding asset, relating to anticipated cash flow forward contracts under U.S. GAAP.

**b. Available for Sale Securities**

Investments in debt and certain equity securities are reflected in the balance sheet at nominal value less any necessary write-downs under IAS. U.S. GAAP requires these investments to be classified as either trading, available-for-sale, or held-to-maturity, depending on management's intent and ability with respect to holding such investments. All investments that have been classified as available-for-sale are carried at fair value, with any unrealized gains or losses recorded as a separate component of equity.

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

**c. Business Combinations**

Prior to the adoption of IAS 22 (revised 1993) on January 1, 1995, the Group wrote-off all goodwill directly to equity in accordance with IAS existing at that time. The adoption of IAS 22 (revised 1993) did not require prior period restatement. Accordingly, a U.S. GAAP difference exists with respect to the recognition of goodwill and amortisation before January 1, 1995. For the purpose of the reconciliation to U.S. GAAP, the pre-1995 goodwill is being amortized through the income statement over the estimated useful lives between 20 and 40 years.

**d. Pension Provisions**

Under IAS, pension costs and similar obligations are accounted for in accordance with IAS 19, "Employee Benefits". For purposes of U.S. GAAP, pension costs for defined benefit plans are accounted for in accordance with SFAS No. 87 "Employers' Accounting for Pensions" and the disclosure is presented in accordance with SFAS No. 132 "Employers' Disclosures about Pensions and Other Post-retirement Benefits". Using an SEC accommodation to foreign private issuers, the Group adopted SFAS No. 87 on January 1, 1994, for its non-U.S. plans, which was also the date of adoption for IAS 19 for those plans. It was not feasible to apply SFAS No. 87 on the effective date specified in the standard. IAS 19 as applied by the Group from 1994 was substantially similar to the methodology required under SFAS No. 87. The adjustment between IAS and U.S. GAAP comprises amortization of the unrecognized transition obligation over the remaining average service lives of employees from 1994 of €238 million, the recognition of an asset limitation under IAS 19, which is not allowed under SFAS No. 87, and the recognition of an additional minimum liability under SFAS No. 87, which is not required under IAS 19.

Following is a reconciliation of the balance sheet and income statement amounts recognized for IAS and U.S. GAAP for both pension and post-retirement benefit plans:

	<u>2000</u>	<u>1999</u>
	<u>(€ million)</u>	
<b>Pension benefits:</b>		
Liability recognized for IAS .....	(3,151)	(3,191)
Asset limitation under IAS 19 .....	1,249	1,261
Additional minimum liability under SFAS No. 87 .....	(215)	(218)
Difference in unrecognized transition obligation .....	<u>71</u>	<u>95</u>
<b>Liability recognized for U.S. GAAP .....</b>	<b><u>(2,046)</u></b>	<b><u>(2,053)</u></b>
Net periodic benefit cost recognized for IAS .....	260	291
Amortization of transition obligation .....	<u>24</u>	<u>24</u>
<b>Net periodic benefit cost recognized for U.S. GAAP .....</b>	<b><u>284</u></b>	<b><u>315</u></b>

**e. Other**

There are also differences between IAS and U.S. GAAP in relation to (1) asset impairments, (2) restructuring provisions, (3) equity compensation, (4) other employee benefits and (5) in-process research and development. None of the differences are individually significant and they are therefore shown as a combined total.

Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

**Additional U.S. GAAP disclosures**

***Discontinued operations***

Under IAS, the Group has classified Agfa, DyStar, EC Erdölchemie and the Fibers business group as discontinuing operations. Under U.S. GAAP, Agfa and DyStar do not meet the requirements for classification as a discontinued operation, as the formal plan for disposal of these operations will not be completed within one year. The following U.S. GAAP income statement excludes Agfa and DyStar as discontinued operations.

	<u>2000</u>	<u>2000</u>	<u>1999</u>
	(\$ million)	(€ million)	(€ million)
<b>Net sales from continuing operations</b> .....	25,278	29,830	26,473
Cost of goods sold .....	<u>(13,375)</u>	<u>(15,784)</u>	<u>(14,240)</u>
<b>Gross profit from continuing operations</b> .....	11,903	14,046	12,233
Selling expenses .....	(5,849)	(6,902)	(6,043)
Research and development expenses .....	(2,019)	(2,382)	(2,242)
General administration expenses .....	(797)	(940)	(862)
Other operating income .....	368	434	726
Other operating expenses .....	<u>(1,049)</u>	<u>(1,238)</u>	<u>(1,578)</u>
<b>Operating result from continuing operations</b> .....	2,557	3,018	2,234
Income (Expenses) from investments in affiliated companies — net .....	320	376	(33)
Interest expense — net .....	(264)	(311)	(192)
Other non-operating expenses — net .....	(226)	(267)	(290)
Income from Agfa divestiture .....	<u>—</u>	<u>—</u>	<u>1,030</u>
<b>Non-operating result from continuing operations</b> .....	(170)	(202)	515
<b>Income from continuing operations before taxes and minority interest</b> .....	2,387	2,816	2,749
Income taxes .....	(967)	(1,141)	(819)
Minority stockholders' interest .....	<u>(22)</u>	<u>(26)</u>	<u>(16)</u>
<b>Income from continuing operations</b> .....	1,398	1,649	1,914
Discontinued Operations — net of tax .....	<u>114</u>	<u>134</u>	<u>53</u>
<b>Net income reported under U.S. GAAP</b> .....	<u>1,512</u>	<u>1,783</u>	<u>1,967</u>
<b>Earnings per share</b>	<u>2000</u>	<u>2000</u>	<u>1999</u>
	(\$ million)	(€ million)	(€ million)
Basic and diluted:			
Income from continuing operations .....	1.91	2.26	2.62
Income from discontinued operations .....	<u>0.16</u>	<u>0.18</u>	<u>0.07</u>
<b>Basic and diluted earnings per share</b> .....	<u>2.07</u>	<u>2.44</u>	<u>2.69</u>

***Financial assets and liabilities***

Apart from the following exceptions, the U.S. GAAP carrying value of financial assets and liabilities is equal to the IAS carrying values.

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

The components of marketable securities under U.S. GAAP at December 31, 2000 and 1999 are the following:

	<u>Cost</u>	<u>Gross unrealized gains</u>	<u>Gross unrealized losses</u>	<u>Carrying value and estimated fair value</u>
		(€ million)		
<b>As of December 31, 2000</b>				
Available for sale securities:				
Equity securities .....	426	1,370	(6)	1,790
Debt securities .....	<u>51</u>	<u>2</u>	<u>—</u>	<u>53</u>
<b>Total</b> .....	<u><u>477</u></u>	<u><u>1,372</u></u>	<u><u>(6)</u></u>	<u><u>1,843</u></u>
<b>As of December 31, 1999</b>				
Available for sale securities:				
Equity securities .....	499	584	(7)	1,076
Debt securities .....	<u>60</u>	<u>3</u>	<u>—</u>	<u>63</u>
<b>Total</b> .....	<u><u>559</u></u>	<u><u>587</u></u>	<u><u>(7)</u></u>	<u><u>1,139</u></u>

Under IAS, unrealized holding gains on available for sale securities are not recorded. Gross unrealized holding losses on available for sale securities are recorded in the other financial expense component of financial income, net. Under U.S. GAAP, unrealized holding gains and losses on available-for-sale-securities are recorded as a component of other comprehensive income.

Proceeds from sales of available for sale securities were €296 million and €71 million in 2000 and 1999, respectively. Gross realized gains were €73 million and €13 million on those sales in 2000 and 1999, respectively. Gross realized losses were €2 million on those sales in 1999. There were no gross realized losses in 2000. The cost used to determine the gain or loss on these sales was determined using the weighted average method.

The maturities of debt securities at December 31, 2000 are as follows:

	<u>Available for Sale</u>
	(€ million)
Within one year .....	41
Over one year through five years .....	<u>10</u>
<b>Total</b> .....	<u><u>51</u></u>

***Derivative financial instruments***

Under U.S. GAAP, the Group marks all of its derivative financial instruments to fair value on an individual basis through the income statement. Therefore, their carrying value is equal to their fair values. Our derivative financial instruments do not qualify for hedge accounting under U.S. GAAP. The estimated fair values of derivative financial instruments are provided in Note 38 to the Bayer Consolidated Financial Statements.

The use of derivatives is confined to the hedging of the operating business and of the related investments and financing transactions.

***Non-derivative financial instruments***

The U.S. GAAP carrying values are equivalent to the IAS carrying values for all non-derivative financial assets and liabilities, except for marketable securities as described above. Non-derivative financial assets consist

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

of cash and cash equivalents, time deposits, and marketable securities. Non-derivative liabilities consist of commercial paper, bank or other short-term financial debts, and long-term debt.

The carrying amount of cash and cash equivalents, time deposits, commercial paper, and bank and other short-term financial debts approximates their estimated fair values, due to the short-term nature of these instruments. The fair value for marketable securities are estimated based on listed market prices or broker or dealer price quotes. The fair value of long-term debt is estimated based on the current quoted market rates available for debt with similar terms and maturities.

The estimated fair values of the long and short-term financial debt is provided in Note 38 to the Group Consolidated Financial Statements.

***Comprehensive Income***

SFAS No. 130 “Reporting Comprehensive Income” established standards for the reporting and display of comprehensive income and its components. Comprehensive income includes net income on all changes in equity during a period that arise from non-owner sources, such as foreign currency items and unrealized gains and losses on securities available-for-sale. The additional disclosures required under U.S. GAAP are as follows:

	<u>2000</u>	<u>1999</u>
	(€ million)	(€ million)
Net income under U.S. GAAP .....	1,783	1,967
Other comprehensive income:		
Unrealized market value adjustment on available-for-sale securities (net of taxes of €3 million and €7 million, respectively) .....	799	507
Reclassification adjustment:		
Net realized gains on sales of securities (net of taxes of €4 million and €5 million, respectively) .....	(12)	(7)
Additional minimum pension liability (net of taxes of €1 million and €19 million, respectively) .....	2	27
Foreign currency translation adjustment .....	<u>288</u>	<u>1,304</u>
<b>Comprehensive income under U.S. GAAP .....</b>	<b><u>2,860</u></b>	<b><u>3,798</u></b>

Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

*Employee Benefit Plans*

Presented below are the disclosures required by U.S. GAAP that are different from those provided under IAS. The following provides a reconciliation of benefit obligations, plan assets and funded status of the plan:

	<u>Pension Benefits</u>		<u>Other Post- Employment Benefits</u>	
	<u>2000</u>	<u>1999</u>	<u>2000</u>	<u>1999</u>
	(€ million)			
<b>Benefit obligation</b>				
At beginning of year . . . . .	10,161	10,589	864	841
Service cost . . . . .	323	300	192	176
Interest cost . . . . .	642	587	52	46
Spin-offs of subsidiaries . . . . .	(91)	(1,129)	—	(91)
Acquisitions . . . . .	—	69	7	—
Plan settlements . . . . .	(12)	(15)	—	—
Actuarial (gain) loss . . . . .	51	(10)	(13)	19
Foreign currency translation . . . . .	128	370	50	91
Benefit payments . . . . .	<u>(518)</u>	<u>(600)</u>	<u>(203)</u>	<u>(218)</u>
<b>Benefit obligation at end of year</b> . . . . .	<u>10,684</u>	<u>10,161</u>	<u>949</u>	<u>864</u>
<b>Plan assets at fair value</b>				
At beginning of year . . . . .	8,407	7,751	337	252
Actual return on plan assets . . . . .	355	1,115	24	39
Spin-offs of subsidiaries . . . . .	(72)	(838)	—	—
Acquisitions . . . . .	51	87	—	—
Foreign currency translation . . . . .	155	397	26	44
Employer contribution . . . . .	368	449	205	220
Employee contributions . . . . .	44	46	—	—
Benefit payments . . . . .	<u>(518)</u>	<u>(600)</u>	<u>(203)</u>	<u>(218)</u>
<b>Plan assets at fair value at end of year</b> . . . . .	<u>8,790</u>	<u>8,407</u>	<u>389</u>	<u>337</u>

Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

	Pension Benefits		Other Post-Employment Benefits	
	2000	1999	2000	1999
(€ million)				
<b>Funded status</b> .....	(1,894)	(1,754)	(560)	(527)
Unrecognized transition obligation .....	79	101	—	—
Unrecognized prior service cost .....	3	2	5	5
Unrecognized actuarial (gains) losses .....	(130)	(362)	(82)	(71)
<b>Additional minimum liability</b> .....	<u>(215)</u>	<u>(218)</u>	<u>—</u>	<u>—</u>
<b>Prepaid (accrued) benefit cost</b> .....	<u>(2,157)</u>	<u>(2,231)</u>	<u>(637)</u>	<u>(593)</u>
Amounts recognized in the balance sheet				
Prepaid benefit cost .....	1,604	1,477	—	—
Accrued benefit liability .....	<u>(3,761)</u>	<u>(3,708)</u>	<u>(637)</u>	<u>(593)</u>
<b>Net amount recognized</b> .....	<u>(2,157)</u>	<u>(2,231)</u>	<u>(637)</u>	<u>(593)</u>
<b>Benefit cost</b>				
Service cost .....	323	300	192	176
Flat-rate tax on employer contributions .....	7	8	—	—
Interest cost .....	642	587	52	46
Expected return on plan assets .....	(592)	(517)	(30)	(22)
Spin-off of subsidiaries .....	—	(32)	—	(33)
Employee contributions .....	(42)	(44)	—	—
Amortisation of unrecognized past service cost .....	1	10	—	1
Amortisation of transition obligation .....	20	20	—	—
Amortisation of actuarial (gains) losses .....	<u>(9)</u>	<u>51</u>	<u>(1)</u>	<u>(2)</u>
<b>Net periodic benefit cost</b> .....	<u>350</u>	<u>383</u>	<u>213</u>	<u>166</u>
<b>Other Post-Retirement Benefit Plans weighted-average assumptions as of December 31,</b>			<b>2000</b>	<b>1999</b>
			%	%
Discount rate .....			7.00%	7.00%
Rate of compensation increase .....			N/A	N/A
Expected return on plan assets .....			8.50%	8.50%

The assumed health care cost trend rate at December 31, 2000 was 6.0% gradually declining to 5.0% by the year 2003. A one-percentage-point change in the assumed health care cost trend rates compared to those used for 2000 would have the following effects:

	1% point increase	1% point decrease
(€ million)		
Effects on total of service and interest cost components .....	11	(9)
Effect on post retirement benefit obligations .....	76	(65)

The Group applies Accounting Principles Board Opinion No. 25 “Accounting for Stock Issued to Employees” and related interpretations in accounting for its stock compensation program.

**Pro Forma Net Income**

Statement of Financial Accounting Standards No. 123 “Accounting for Stock-Based Compensation” would result in the same accounting treatment for the Group’s stock incentive plans as was applied under IAS. Hence the additional pro forma discussions required under SFAS No. 123 do not apply.

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

### *Proportional Consolidation*

The Group accounts for its investment in 41 joint ventures using the proportional consolidation method, which is the benchmark treatment specified under IAS 31. Under U.S. GAAP, investments in joint ventures generally are accounted for under the equity method. The differences in accounting treatment between proportionate consolidation and the equity method of accounting have no impact on the Group's consolidated stockholders' equity or net income. Rather, they relate solely to matters of classification and display. The United States Securities and Exchange Commission (SEC) permits the omission of such differences in classification and display in the reconciliation to U.S. GAAP provided certain criteria have been met.

Condensed financial information relating to the Group's pro-rata interest in joint ventures accounted for using the proportionate consolidation method is as follows:

<u>Balance Sheet Information</u>	<u>Dec. 31, 2000</u>	<u>Dec. 31, 1999</u>
	(in million €)	
Current assets . . . . .	582	576
Noncurrent assets . . . . .	791	674
Short-term liabilities . . . . .	(511)	(487)
Long-term liabilities . . . . .	(189)	(201)
 <u>Statement of Income Information</u>	 <u>Dec. 31, 2000</u>	 <u>Dec. 31, 1999</u>
	(in million €)	
Net sales . . . . .	1,799	1,514
Operating result . . . . .	132	56
Net income . . . . .	118	23
 <u>Statement of Cash Flow Information</u>	 <u>Dec. 31, 2000</u>	 <u>Dec. 31, 1999</u>
	(in million €)	
Net cash provided by operating activities . . . . .	159	119
Net cash (used in) investing activities . . . . .	(142)	(79)
Net cash (used in) financing activities . . . . .	(29)	(57)

### *Self-Insurance*

Various different Group companies are self-insured to different degrees. The maximum amount of any Group companies' self-insurance is for general liability up to approximately €7 million per occurrence, and product liability up to approximately €12 million per occurrence up to a maximum of approximately €19 million per year. An estimate of the cost of settling existing claims is included under accrued liabilities.

### *Effect of New Accounting Pronouncements*

#### **U.S. GAAP**

In December 1999, the Securities and Exchange Commission released Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" ("SAB 101"). SAB 101 provides guidance on the application of U.S. generally accepted accounting principles to revenue recognition issues in financial statements. SAB 101 outlines the criteria that must be met to recognize revenue and provides guidance for disclosures related to revenue recognition policies. Bayer's adoption of SAB 101 in calendar 2000 did not have a material effect on the Group's financial position, results of operations or cash flows.

In March 2000, the Financial Accounting Standards Board issued FASB Interpretation No. 44 ("FIN 44"), "Accounting for Certain Transactions Involving Stock Compensation — An Interpretation of Accounting Principles Board Opinion No. 25 ("APB 25")." FIN 44 clarifies the definition of an employee for purposes of applying APB 25, the criteria for determining whether a plan qualifies as a noncompensatory plan; the accounting consequences of various modifications to the terms of the previously fixed stock options or awards and the

## Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)

accounting for an exchange of stock compensation awards in a business combination. Bayer's adoption of FIN 44 in calendar 2000 had no effect on the Group's financial position, results of operations or cash flows.

Statement of Financial Accounting Standards ("SFAS") No. 133 "Accounting for Derivative Instruments and Hedging Activities," as amended by SFAS No. 137 and No. 138, requires all derivative instruments be recorded on the balance sheet at their fair value. Changes in the fair value of derivatives are recorded each period in current earnings or other comprehensive income. The adoption of SFAS No. 133 as of January 1, 2001 did not have a material effect on the Group's financial position, results of operations or cash flows.

In June 2001, the Financial Accounting Standards Board approved SFAS 141 "Business Combinations" and SFAS 142 "Goodwill and Other Intangible Assets". SFAS 141 requires the purchase method of accounting to be used for all business combinations initiated after June 30, 2001, establishes specific criteria for the recognition of intangible assets separately from goodwill, and requires unallocated negative goodwill to be written off immediately as an extraordinary gain. Bayer will apply SFAS 141 to all business combinations for which purchase agreements are signed after June 30, 2001. SFAS 142 addresses the accounting for goodwill and identifiable intangible assets subsequent to their acquisition. Amortization of goodwill will discontinue upon adoption of SFAS 142. In addition, goodwill recorded as a result of business combinations completed during the six-month period ended December 31, 2001 will not be amortized. All goodwill and intangible assets will be tested for impairment in accordance with the provision of this statement. The Group will apply the provisions of SFAS 142 beginning January 1, 2002. Bayer has not completed its analysis of these standards and, accordingly, has not determined what affect the adoption of SFAS 141 and 142 will have on the Group's financial position, results of operations or cash flows.

### [45] Subsequent Events *(unaudited)*

In January 2001, the Group further enhanced its position in the competitive crop protection market by acquiring MIKADO®, a leading corn herbicide in Europe, from Syngenta for €115 million in cash.

Effective January 1, 2001, the Dralon® business of the Fibers Business Group was sold to the Fraver group of Biella, Italy.

Effective May 1, 2001, the Group sold its 50 percent interest in EC Erdölchemie GmbH to Deutsche BP, the other partner in the joint venture. In addition, the Company concluded long-term supply contracts to secure access to petrochemical feedstocks from EC Erdölchemie GmbH.

Effective January 1, 2001 the Company sold its 20 percent interest in Kerr-McGee Pigments GmbH & Co. KG.

On May 2, 2001, the Company paid out a dividend of €1,022 million (€1.40 per share). This dividend was not included in accrued liabilities at December 31, 2000 as shareholders had not yet approved it until April 27, 2001.

### **Total remuneration of the Board of Management and the Supervisory Board, advances and loans**

The remuneration of the Board of Management for 2000 amounted to €10,387,801. Emoluments to retired members of the Board of Management and their surviving dependents amounted to €8,923,934.

Pension provisions for these individuals, amounting to €58,849,572 are reflected in the balance sheet of Bayer AG.

The remuneration of the Supervisory Board amounted to €2,078,680.

**Notes to the Consolidated Financial Statements of the Bayer Group — (Continued)**

There were no loans to members of the Board of Management or the Supervisory Board outstanding as of December 31, 2000, nor any repayments of such loans during the year.

Leverkusen, February 27, 2001

Bayer Aktiengesellschaft  
The Board of Management

**Bayer Group Consolidated Statements of Income (Unaudited)**

	<u>June 30,</u> <u>2001</u>	<u>June 30,</u> <u>2000</u>
	<u>(€ million)</u>	
<b>Net sales</b> .....	<u>15,972</u>	<u>15,238</u>
<i>Net sales from discontinuing operations</i> .....	(354)	(739)
Net sales from continuing operations .....	15,618	14,499
Cost of goods sold .....	<u>(8,464)</u>	<u>(7,553)</u>
<b>Gross Profit</b> .....	<u>7,154</u>	<u>6,946</u>
Selling expenses .....	(3,583)	(3,124)
Research and development expenses .....	(1,210)	(1,105)
General administration expenses .....	(554)	(532)
Other operating income .....	150	157
Other operating expenses .....	<u>(601)</u>	<u>(421)</u>
<b>Operating result from continuing operations</b> .....	<u>1,356</u>	<u>1,921</u>
<i>Operating result from discontinuing operations</i> .....	315	73
<b>Operating result</b> .....	<u>1,671</u>	<u>1,994</u>
<b>Non-operating result</b> .....	<u>(230)</u>	<u>(218)</u>
<b>Income before income taxes</b> .....	<u>1,441</u>	<u>1,776</u>
Income taxes .....	<u>(437)</u>	<u>(732)</u>
<b>Income after taxes</b> .....	<u>1,004</u>	<u>1,044</u>
Minority stockholders' interest .....	2	(11)
<b>Net income</b> .....	<u>1,006</u>	<u>1,033</u>
<b>Basic and diluted earnings per share (€)</b> .....	<u>1.38</u>	<u>1.41</u>

**Bayer Group Consolidated Balance Sheets (Unaudited)**

	<u>June 30,</u> <u>2001</u>	<u>June 30,</u> <u>2000</u>
	(€ million)	
<b>ASSETS</b>		
<b>Noncurrent assets</b>		
Intangible assets .....	5,245	4,072
Property, plant and equipment .....	13,735	12,747
Investments .....	<u>3,325</u>	<u>1,387</u>
	<u>22,305</u>	<u>18,206</u>
<b>Current assets</b>		
Inventories .....	6,640	5,439
Receivables and other assets		
Trade accounts receivable .....	6,755	6,266
Other receivables and other assets .....	<u>2,616</u>	<u>2,081</u>
	<u>9,371</u>	<u>8,347</u>
<b>Liquid assets</b>		
Marketable securities and other instruments .....	58	213
Cash and cash equivalents .....	<u>608</u>	<u>878</u>
	<u>666</u>	<u>1,091</u>
	<u>16,677</u>	<u>14,877</u>
<b>Deferred taxes</b> .....	<u>47</u>	<u>425</u>
<b>Deferred charges</b> .....	<u>286</u>	<u>342</u>
	<u>39,315</u>	<u>33,850</u>
<i>of which discontinuing operations</i> .....	243	1,002
<b>STOCKHOLDERS' EQUITY AND LIABILITIES</b>		
<b>Stockholders' equity</b>		
Capital stock of Bayer AG .....	1,870	1,870
Capital reserves of Bayer AG .....	2,942	2,942
Retained earnings .....	10,372	9,032
Net income .....	1,006	1,033
Translation differences .....	<u>1,106</u>	<u>279</u>
	<u>17,296</u>	<u>15,156</u>
<b>Minority stockholders' interest</b> .....	<u>103</u>	<u>190</u>
<b>Liabilities</b>		
<b>Long-term liabilities</b>		
Long-term financial obligations .....	3,240	3,015
Miscellaneous long-term liabilities .....	184	187
Provisions for pensions and other post-employment benefits .....	4,312	4,242
Other long-term provisions .....	<u>1,117</u>	<u>1,176</u>
	<u>8,853</u>	<u>8,620</u>
<b>Short-term liabilities</b>		
Short-term financial obligations .....	5,041	2,684
Trade accounts payable .....	1,830	1,782
Miscellaneous short-term liabilities .....	2,790	2,438
Short-term provisions .....	<u>1,731</u>	<u>1,523</u>
	<u>11,392</u>	<u>8,427</u>
	<u>20,245</u>	<u>17,047</u>
<i>of which discontinuing operations</i> .....	<u>75</u>	<u>483</u>
<b>Deferred taxes</b> .....	<u>1,481</u>	<u>1,271</u>
<b>Deferred income</b> .....	<u>190</u>	<u>186</u>
	<u>39,315</u>	<u>33,850</u>

## Bayer Group Consolidated Statements of Changes in Stockholders' Equity (Unaudited)

	Number of shares	Capital stock of Bayer AG	Capital reserves of Bayer AG	Retained earnings	Net Income	Translation differences	Total Stockholders' equity
			(€ million, except share data)				
<b>Dec. 31, 1999</b> .....	730,341,920	1,870	2,942	7,965	2,002	227	15,006
<b>Changes in stockholders' equity resulting from capital contributions and dividend payments</b>							
• Capital contributions .....							
• Dividend payments .....					(949)		(949)
					(949)		(949)
<b>Other changes in stockholders' equity not recognized in income</b>							
• Exchange differences .....						52	52
• Other differences .....				14			14
				14		52	66
<b>Changes in stockholders' equity recognized in income</b>							
• Allocation to retained earnings .....				1,053	(1,053)		0
• Income after taxes for 2000 .....					1,033		1,033
<b>June 30, 2000</b> .....	730,341,920	1,870	2,942	9,032	1,033	279	15,156
<b>Changes in stockholders' equity resulting from capital contributions and dividend payments</b>							
• Capital contributions .....							
• Dividend payments .....							
<b>Other changes in stockholders' equity not recognized in income</b>							
• Exchange differences .....						186	186
• Other differences .....				15			15
				15		186	201
<b>Changes in stockholders' equity recognized in income</b>							
• Allocation to retained earnings .....							
• Income after taxes for 2000 .....					783		783
<b>Dec. 31, 2000</b> .....	730,341,920	1,870	2,942	9,047	1,816	465	16,140
<b>Changes in stockholders' equity resulting from capital contributions and dividend payments</b>							
• Capital contributions .....							
• Dividend payments .....					(1,022)		(1,022)
					(1,022)		(1,022)
<b>Other changes in stockholders' equity not recognized in income</b>							
• Exchange differences .....						641	641
• Other differences .....				72			72
• Special item .....				459			459
				531		641	1,172
<b>Changes in stockholders' equity recognized in income</b>							
• Allocation to retained earnings .....				794	(794)		0
• Income after taxes for 2000 .....					1,006		1,006
<b>June 30, 2001</b> .....	730,341,920	1,870	2,942	10,372	1,006	1,106	17,296

**Bayer Group Consolidated Statements of Cash Flows (Unaudited)**

	<u>June 30,</u> <u>2001</u>	<u>June 30,</u> <u>2000</u>
	(€ million)	
Operating result . . . . .	1,671	1,994
Income taxes currently payable . . . . .	(578)	(675)
Depreciation and amortization . . . . .	1,222	1,039
Change in long-term provisions . . . . .	(155)	(133)
Gains on retirements of noncurrent assets . . . . .	<u>(324)</u>	<u>(56)</u>
<b>Gross cash provided by operating activities . . . . .</b>	<b><u>1,836</u></b>	<b><u>2,169</u></b>
(Increase) Decrease in inventories . . . . .	(485)	(157)
(Increase) in trade accounts receivable . . . . .	(542)	(709)
Increase (Decrease) in trade accounts payable . . . . .	(126)	153
Changes in other working capital . . . . .	<u>148</u>	<u>(104)</u>
<b>Net cash provided by operating activities . . . . .</b>	<b><u>831</u></b>	<b><u>1,352</u></b>
<i>of which discontinuing operations . . . . .</i>	<i>(9)</i>	<i>(61)</i>
Cash outflows for additions to property, plant and equipment . . . . .	(1,146)	(1,267)
Cash inflows from sales of property, plant and equipment . . . . .	168	178
Cash inflows and outflows related to investments . . . . .	473	23
Cash outflows for acquisitions . . . . .	(414)	(2,545)
Interest and dividends received . . . . .	94	102
Cash inflows from marketable securities . . . . .	<u>159</u>	<u>132</u>
<b>Net cash provided by (used in) investing activities . . . . .</b>	<b><u>(666)</u></b>	<b><u>(3,377)</u></b>
<i>of which discontinuing operations . . . . .</i>	<i>(14)</i>	<i>(74)</i>
Bayer AG dividend and dividend payments to minority stockholders . . . . .	(1,027)	(952)
Issuances of debt . . . . .	1,859	2,471
Retirements of debt . . . . .	(740)	(1,300)
Interest paid . . . . .	(239)	(185)
Taxes on financial result . . . . .	<u>76</u>	<u>26</u>
<b>Net cash provided by (used in) financing activities . . . . .</b>	<b><u>(71)</u></b>	<b><u>60</u></b>
<i>of which discontinuing operations . . . . .</i>	<i>(41)</i>	<i>(11)</i>
<b>Change in cash and cash equivalents due to business activities . . . . .</b>	<b><u>94</u></b>	<b><u>(1,965)</u></b>
<b>Cash and cash equivalents at beginning of year . . . . .</b>	<b><u>491</u></b>	<b><u>2,812</u></b>
Change in cash and cash equivalents due to changes in scope of consolidation . . . . .	21	28
Change in cash and cash equivalents due to exchange rate movements . . . . .	<u>2</u>	<u>3</u>
<b>Cash and cash equivalents at June 30, . . . . .</b>	<b><u>608</u></b>	<b><u>878</u></b>
Marketable securities and other instruments . . . . .	<u>58</u>	<u>213</u>
<b>Liquid assets as per balance sheets . . . . .</b>	<b><u>666</u></b>	<b><u>1,091</u></b>

## Notes to the Unaudited Interim Financial Statements of the Bayer Group

### Accounting policies

The Unaudited Interim Financial Statements as of and for the six months ended June 30, 2001 has been prepared in accordance with the accounting policies set out in the Financial Report for the year ended December 31, 2000, except as indicated below, and International Accounting Standard (IAS) 34 on interim financial reporting.

### Effect of New Accounting Pronouncements

Bayer's 2001 financial statements reflect the requirements of the following new or revised IASs and SICs that the Group implemented in 2001:

IAS 12 (Revised 2000)	Income Taxes
IAS 19 (Revised 2000)	Employee Benefits
IAS 39	Financial Instruments: Recognition and Measurement
IAS 40	Investment Property
SIC 17	Equity — Cost of an Equity Transaction
SIC 19	Reporting Currency — Measurement and Presentation of Financial Statements under IAS 21 and IAS 29

The adoption of these standards, with the exception of IAS 39, did not have any significant impact on Bayer's financial position or its results of operations during the first half of 2001 or on the comparability of the consolidated financial statements for the first half of 2000. The adoption of IAS 39 resulted in an increase to equity related to the fair market value of the Group's investment portfolio. The Group also recognized an increase in equity relating to unrealized gains in derivative instruments hedging future cash flows.

On January 1, 2001, the Group adopted International Accounting Standard (IAS) 39 "Financial Instruments: Recognition and Measurement." IAS 39 requires that all financial assets and financial liabilities, including derivatives, be recognized in the balance sheet at their fair values. The Group's investments in debt and equity instruments are classified as available-for-sale; therefore, changes in the fair value of these investments are recognized in a separate component of equity. The Group does not hold trading investments or held-to-maturity investments. For derivative instruments designated as fair value hedges, changes in the fair values of derivative instruments will generally be offset in the income statement by changes in the fair values of the hedged items. For derivative instruments designated as cash flow hedges, the effective portion of any hedge is reported in accumulated other comprehensive income (loss) until it is cleared to earnings during the same period in which the hedged item affects earnings. The ineffective portion of all hedges is recognized in current period earnings. Derivative instruments that are not designated as hedges are recognized at their fair values.

### Objectives and Strategies For Holding Derivative Instruments

Under the Group's Corporate Treasury Guidelines, the Group enters into derivative hedging instruments in the ordinary course of business to reduce its exposure to foreign currency and interest rate risks. The Guidelines establish a variety of approved derivative instruments to be utilized in each risk management program, as well as varying levels of exposure coverage and time horizons based on an assessment of risk factors related to each program. Derivative instruments utilized during the period include forwards, options and swaps.

### Fair Value Hedges

During the six months ended June 30, 2001, the Group has maintained a number of interest rate swaps that involve the exchange of fixed for floating rate interest payments that allow the Group to maintain a target range of floating rate debt. During the period, the Group also maintained foreign currency swaps that effectively modify

## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

the principal of debts denominated in foreign currencies into debts denominated in the local currency of issuing subsidiary. The Group expects that its interest rate and foreign currency swaps will be effective because the critical terms of the hedging instruments and those of the entire hedged assets or liabilities are the same. Changes in the fair value of derivatives that hedge interest rate risk are recorded in *interest expense-net* each period. The offsetting changes in the fair values of the related debt are also recorded in *interest expense-net*. Changes in the fair value of derivatives that hedge foreign exchange rate risks are recorded in *other non-operating expense-net* for each period. The offsetting changes in the fair values of the related debt are also recorded in *other non-operating expense-net*. The Group maintains no other fair value hedges.

### Cash Flow Hedges

The Group maintains a number of cash flow hedging programs to reduce risks related to foreign currency. Foreign currency programs involve hedging a portion of foreign currency-denominated cash receipts and significant cash payments. While each risk management program has a different time horizon, no program currently extends beyond the next one-year period.

The effects of hedges of foreign currency-denominated cash receipts are reported in *other non-operating expense-net*, and the effects of hedges of payments are reported in the same line item of the underlying payment.

There was no hedge ineffectiveness reported in earnings in the six-months ended June 30, 2001, and no amounts were reclassified to earnings for forecasted transactions that did not occur.

<u>Equity (Cash Flow Hedge Portion Only)</u>	<u>Pretax</u>	<u>Tax</u>	<u>After-tax</u>
Balance at January 1, 2001 (upon adoption of IAS 39) . . . . .	€ 95	€ 38	€ 57
Additions and revaluations of derivatives designated as cash flow hedges . . . . .	(61)	24	(37)
Less: Clearance of hedge results to earnings during the quarter . . . . .	<u>(37)</u>	<u>15</u>	<u>(22)</u>
Balance at June 30, 2001 . . . . .	<u>€ (3)</u>	<u>€ 1</u>	<u>€ (2)</u>
Portion of ending balance expected to be reclassified into earnings over the next twelve months . . . . .	<u>€ (3)</u>	<u>€ 1</u>	<u>€ (2)</u>

Cash flow hedge results are reclassified into earnings during the same period in which the related exposure impacts earnings. If it appears that a forecasted transaction will not materialize, reclassifications are made sooner.

### Hedges of Net Investment in a Foreign Entity

The Group does not maintain any hedges of net investment in a foreign entity.

### Notes to the Statements of Income

#### [1] Discontinuing operations

EC Erdölchemie GmbH, Cologne, until May 1, 2001 a joint venture between Bayer and Deutsche BP AG, produces a variety of petrochemical feedstocks from liquid hydrocarbons and natural gas. As of May 1, 2001 Bayer sold its 50 percent interest in EC Erdölchemie, to the joint venture partner Deutsche BP AG. The €334 million operating result shown in the table below comprises that of the Erdölchemie Business Group up to the date of divestiture and the €317 million in income from the sale of shares. The Erdölchemie Business Group, which was formerly included in the Chemicals segment, is reflected under discontinuing operations.

In 2001, the Group approved a plan to discontinue the Fibers business group, which was formerly included in the Polymers division. Certain operation within fibers were divested in January 2001 and the Group expects to divest of the remaining operations by the end of 2001.

## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

The textile dyes business of our joint venture DyStar was combined with that of BASF effective October 1, 2000. The operating result of the DyStar Business Group, amounting to €5 million (2000: €6 million), which was formerly included in the Chemicals segment, is reflected under discontinuing operations.

The non-operating results and the income taxes attributable to EC Erdölchemie, DyStar and Fibers are reflected in the corresponding items of the income statement.

	Erdölchemie		Fibers		DyStar		Total	
	2001	2000	2001	2000	2001	2000	2001	2000
	(€ million)							
June 30								
<b>Net sales</b> .....	<u>233</u>	<u>311</u>	<u>121</u>	<u>251</u>	<u>—</u>	<u>177</u>	<u>354</u>	<u>739</u>
Cost of goods sold .....	(196)	(255)	(101)	(184)	—	(111)	(297)	(550)
Selling expenses .....	(16)	(21)	(15)	(24)	—	(34)	(31)	(79)
Research and development expenses .....	—	(1)	(4)	(4)	—	(5)	(4)	(10)
General administration expenses .....	(3)	(3)	(4)	(5)	—	(11)	(7)	(19)
Other operating income .....	317	4	1	—	—	5	1	9
Other operating expenses .....	<u>(1)</u>	<u>(2)</u>	<u>(17)</u>	<u>—</u>	<u>—</u>	<u>(15)</u>	<u>(18)</u>	<u>(17)</u>
<b>Operating result from discontinuing operations</b> .....	<u>334</u>	<u>33</u>	<u>(19)</u>	<u>34</u>	<u>—</u>	<u>6</u>	<u>315</u>	<u>73</u>
Non-operating result .....	<u>(1)</u>	<u>—</u>	<u>(1)</u>	<u>1</u>	<u>—</u>	<u>(7)</u>	<u>(2)</u>	<u>(6)</u>
Equity-method income .....	—	—	—	—	5	—	5	—
<b>Income (Loss) before income taxes</b> .....	<u>333</u>	<u>33</u>	<u>(20)</u>	<u>35</u>	<u>5</u>	<u>(1)</u>	<u>318</u>	<u>67</u>
Income taxes .....	<u>(6)</u>	<u>—</u>	<u>(3)</u>	<u>(8)</u>	<u>(2)</u>	<u>(1)</u>	<u>(11)</u>	<u>(9)</u>
<b>Income (Loss) after taxes</b> .....	<u>327</u>	<u>33</u>	<u>(23)</u>	<u>27</u>	<u>3</u>	<u>(2)</u>	<u>307</u>	<u>58</u>

### [2] Segment Reporting

In accordance with IAS 14 (Segment Reporting), a breakdown of certain data in the financial statements is given by business segment and geographical region, generally based on location of assets. The aim is to provide users of the financial statements with information regarding the profitability and future prospects of the Group's various activities. To allow a more accurate appraisal of continuing operations, the discontinuing operations are shown separately.

## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

The Group is managed based upon business groups which are aggregated into reportable business segments based upon economic characteristics, the nature of products and production processes, types of customers, methods of distribution and on nature of the regulatory environment. The business segment reporting in these financial statements has been updated to reflect the Group's current internal reporting and decisions taken in 2001, such as the decision to discontinue certain business groups and planned changes in connection with the holding company structure of the Group. Giving effect to these changes, the Group operates 14 business groups, which have been aggregated into 7 reportable business segments groups.

<u>Segment</u>	<u>Activity</u>
<b>Healthcare</b>	
Pharmaceuticals	Development and marketing of ethical pharmaceuticals
Consumer Care & Diagnostics	Development and marketing of over-the-counter medications, nutritional supplements, insecticides and insect repellants and products for central laboratory, near patient testing, and self-testing applications
<b>Agriculture</b>	
Crop Protection	Development and marketing of chemical insecticides, fungicides and herbicides
Animal Health	Development and marketing of veterinary medicines, environmental health products, and nutritionals for the health care of companion animals and commercial livestock/poultry
<b>Polymers</b>	
Plastics & Rubber	Manufacture and supply of engineered plastics and supplier of raw materials, rubber chemicals and modifiers to the rubber and tire industry
Polyurethanes and Coatings & Colorants	Development, production and marketing of raw materials, formulations and systems used in producing polyurethane polymers, lacquers, coatings, sealants, adhesives, and colorants
<b>Chemicals</b>	Manufacture and marketing of bulk and specialty chemicals, metal and ceramic powders, flavors and fragrances and cellulose derivatives

The reconciliation line reflects intersegment items and income and expenses not allocable to the segments, such as central R&D expenses, corporate costs, and revenues and expenses from sideline operations. The intersegment sales reflect intragroup transactions effected at transfer prices fixed on an arm's-length basis. The reconciliation line also reflects those assets and liabilities that cannot be allocated to the reportable segments.

Business activities that Bayer has already divested or intends to divest are shown as discontinuing operations. These are the worldwide DyStar business group; the Erdölchemie business group located in Europe; the worldwide Agfa business segment; and the worldwide Fibers business.

The reportable segment and geographical segment data is calculated as follows:

- Comparability of the operating results of different years may be restricted by exceptional items relating particularly to restructuring measures and acquisitions or divestitures of companies or businesses. For this reason, the operating result before exceptional items is also shown.
- The return on sales before exceptional items is the ratio of the operating result before exceptional items to external sales.



## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

### Key Data by Region

Regions	Europe		North America		Asia/Pacific		Latin America/ Africa/Middle East		Reconciliation		Continuing Operations		Discontinuing Operations		Bayer Group	
	June 30,															
	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000
Net sales (external) — by market . . . . .	6,546	5,916	4,879	4,657	2,509	2,377	1,684	1,549			15,618	14,499	354	739	15,972	15,238
— Change . . . . .	10.6%	10.3%	4.8%	30.7%	5.6%	42.3%	8.7%	18.6%			7.7%	21.8%				
Net sales (external) — by point of origin . . .	7,309	6,766	5,073	4,785	2,049	1,859	1,187	1,089			15,618	14,499	354	739	15,972	15,238
— Change in € . . . . .	8.0%	10.2%	6.0%	33.4%	10.2%	49.9%	9.0%	16.0%			7.7%	21.8%			4.8%	7.1%
— Change in local currencies . . . . .	7.9%	9.6%	(0.2%)	19.2%	14.4%	25.6%	4.8%	4.0%			6.0%	14.8%			3.1%	(0.3%)
Interregional sales . . . . .	1,751	1,521	968	755	141	105	72	49	(2,932)	(2,430)						
Operating result before exceptional items . . .	1,337	1,386	(28)	375	216	220	125	113	(159)	(151)	1,491	1,943	14	78	1,505	2,021
— Change . . . . .	(3.5%)	2.8%		90.4%	(1.8%)	139.1%	10.6%	41.3%			(23.3%)	(26.3%)				
Return on sales before exceptional items . . .	18.3%	20.5%	(0.6%)	7.8%	10.5%	11.8%	10.5%	10.4%			9.5%	13.4%			9.4%	13.3%
Exceptional items . . . . .	(26)	27	(90)	(49)	0	0	0	0	(19)	0	(135)	(22)	301	(5)	166	(27)
Return on sales including exceptional items	17.9%	20.9%	(2.3%)	6.8%	10.5%	11.8%	10.5%	10.4%			8.7%	13.2%			10.5%	13.1%
Operating result . . . . .	1,311	1,413	(118)	326	216	220	125	113	(178)	(151)	1,356	1,921	315	73	1,671	1,994
Gross cash flow . . . . .	1,379	1,306	286	619	206	200	128	123	(179)	(175)	1,820	2,073	16	96	1,836	2,169
Total assets . . . . .	18,441	14,864	14,386	12,026	3,610	3,148	2,112	1,813	523	997	39,072	32,848	243	1,002	39,315	33,850

### [3] Earnings per share

Earnings per share are determined according to IAS 33 (Earnings Per Share) by dividing the net income by the average number of shares.

In the first half of 2001, as in the first half of 2000, the number of shares remained constant at 730,341,920. Earnings per share were €1.38 (2000: €1.41).

There were no subscription rights outstanding in either the first six months of 2001 or 2000, and therefore no dilutive potential shares.

### Notes to the Balance Sheets

#### [4] Restructuring charges

During the first six months of 2001, the total charges incurred for restructuring programs were €63 million, of which €40 million were accrued and are expected to be used as the related actions under the plans are completed. €8 million of the charges were related to impairments of fixed assets. €5 million of these charges related to impairments in conjunction with the restructuring of the Elkhart Consumer Care operations in the U.S. for which the Group directly reduced the value of the assets in the consolidated balance sheet.

The remaining €55 million of the charges were related to employee terminations of €12 million and to other third party costs of €43 million. The employee termination charges include €9 million for employee termination costs in conjunction with the restructuring of our Sarnia facility in Canada as well as €1 million of charges related to employee terminations in respect to the continued integration of Lyondell into our Polyurethanes business in the U.S. The other third party charges include €10 million of costs related to the reorganization of the Styrenics business in Europe, €11 million of costs related to the Lyondell integration and €15 million of costs related to continued efficiency measures taken by our Pharmaceutical Business Group as a part of a worldwide restructuring program. Other third party costs are mainly associated with other obligations due to the streamlining of operations, dismantling and abandonment of certain facilities, lease obligations as well as other restructuring measures. Additional charges are expected to be incurred for each of these programs in the second half 2001.

## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

The movement in restructuring provisions is as follows:

	<u>Employee termination costs</u>	<u>Tangible fixed asset impairment</u> (€ million)	<u>Other third party costs</u>	<u>Total</u>
<b>Balance at December 31, 2000</b> .....	<u>86</u>	<u>13</u>	<u>32</u>	<u>131</u>
Additions .....	12	8	43	63
Cash payments .....	(32)	—	(36)	(68)
Reclassification to fixed assets .....	—	(14)	—	(14)
Translation gain (loss), net .....	<u>5</u>	<u>1</u>	<u>(3)</u>	<u>3</u>
<b>Balance at June 30, 2001</b> .....	<u><u>71</u></u>	<u><u>8</u></u>	<u><u>36</u></u>	<u><u>115</u></u>

### *Tangible fixed asset impairments*

Based on the review of the carrying values of tangible fixed assets, write-downs are recorded for tangible fixed assets impaired or related to activities to be restructured, divested or abandoned. The provision is transferred to accumulated depreciation as the tangible fixed assets are restructured, divested or abandoned.

### *Other third party costs*

Other third party costs are mainly associated with other obligations due to the abandonment of certain facilities.

## [5] Commitments and contingencies

### *Collaborative Agreements*

The Group has entered into long-term research agreements with various third parties under which Bayer will fund various research projects and other commitments based upon the achievement of certain milestones or other specific conditions. As of June 30, 2001, the estimated payments to these parties, assuming the milestones or other conditions are met are as follows:

	<u>€ million</u>
2001 .....	127
2002 .....	135
2003 .....	140
2004 .....	55
2005 .....	62
After 2005 .....	<u>206</u>
	<u><u>793</u></u>

### *Legal Proceedings*

Bayer is involved in a number of legal proceedings. As a global company active in a wide range of life sciences and chemical activities, we may in the normal course of our business become involved in proceedings relating to such matters as:

- product liability;
- patent validity and infringement disputes;
- tax assessments;
- competition and antitrust; and

## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

- past waste disposal practices and release of chemicals into the environment.

We cannot predict with certainty the outcome of any proceedings in which we are or may become involved. An adverse decision in a lawsuit seeking damages from us could result in a monetary award to the plaintiff and, to the extent not covered by our insurance policies, could significantly harm our business or the results of our operations. If we lose a case in which we seek to enforce our patent rights, we could sustain a loss of future revenue as other manufacturers begin to market products we developed.

In the remainder of this subsection, we describe what we believe to be the most significant of the proceedings in which Bayer AG or its subsidiaries are currently involved.

### *Patent validity challenges and infringement proceedings; patent-related antitrust actions*

In the United States, Bayer AG and its U.S. subsidiary Bayer Corporation are plaintiffs or co-plaintiffs in a number of patent infringement actions against generic drug manufacturers. The lawsuits arose because these manufacturers filed applications in the United States for regulatory approval of generic versions of products containing the active ingredients ciprofloxacin or nifedipine marketed by Bayer or its licensees. Some of these actions have, in turn, given rise to lawsuits alleging that Bayer AG, Bayer Corporation and other parties had violated federal and state antitrust and similar statutes.

Generic drug manufacturers may receive approval to market formerly patented products after all applicable patent protections have expired. A generic drug manufacturer may, however, attempt to avoid a patent prior to its scheduled expiry by attacking its validity or enforceability. In the United States, the Federal Food, Drug, and Cosmetics Act enables generic manufacturers wishing to market a bio-equivalent version of another manufacturer's product to seek regulatory approval by filing an Abbreviated New Drug Application (ANDA). In its ANDA, the applicant must state the basis on which it seeks to avoid any applicable patents.

One basis for seeking approval is a claim that the applicant's product does not infringe existing patent rights or that the patent is invalid or unenforceable. This claim is commonly known as a "paragraph IV certification" or "ANDA (IV)". Under the Act, the filing of a paragraph IV certification is deemed an infringement of patent rights. The Act permits the holder of the patent rights to file an infringement action against the ANDA applicant within 45 days of receiving notice of the paragraph IV certification. If the holder of the patent rights chooses not to file suit within this period, the FDA may approve the ANDA immediately. The filing of a suit, however, stays final FDA approval of the ANDA for a period of 30 months. The court may shorten or extend this period. If the court rules that the applicant's product will not infringe the patent or that the patent is invalid or unenforceable, the FDA may grant approval immediately. If, on the other hand, the court rules that the product will infringe the patent, the FDA may not grant final approval until the original patent has expired.

### *Ciprofloxacin-related actions*

*Patent-related actions.* In January 1997, Bayer AG and Bayer Corporation settled a patent infringement suit against Barr Laboratories, Inc. This suit arose when Barr filed an ANDA (IV) seeking regulatory approval of a generic form of Bayer's ciprofloxacin anti-infective product, which we sell in the United States under the trademark Cipro®. Under the settlement agreement, Barr and Rugby Laboratories Inc., another generic manufacturer that supported Barr during the infringement suit, agreed to dismiss the litigation, acknowledging the validity and enforceability of Bayer's patent rights, and we agreed to pay each company \$24.5 million. The agreement gave us the option, until our patent expires in 2003, to supply Barr and Rugby's then parent company Hoechst Marion Roussel Inc. with ciprofloxacin products which they could then market under a license from Bayer using a single trade name, or else to make quarterly cash payments. Since concluding the settlement agreement, we have opted to make payments. Shortly after settling this suit, we applied to the U.S. Patent and Trademark Office for a reexamination of our patent. The Patent and Trademark Office reissued the patent in February 1999.

## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

In April 1999, Danbury Pharmacal Inc., an affiliate of Schein Pharmaceutical, Inc., filed an ANDA (IV) alleging that our ciprofloxacin patent was invalid. Mylan Pharmaceuticals, Inc., an affiliate of Mylan Laboratories, Inc., filed an ANDA (IV) challenging our ciprofloxacin patent in September 1999. To protect and enforce our patent rights, Bayer AG together with Bayer Corporation as licensee filed two lawsuits against Danbury Pharmacal and Schein Pharmaceutical and one lawsuit against Mylan Pharmaceuticals and Mylan Laboratories in 1999, and a second lawsuit against Mylan Pharmaceuticals and Mylan Laboratories in 2000. Reddy Cheminor, Inc. intervened as an additional defendant in the Danbury/Schein suits. All these suits were consolidated for pre-trial proceedings and trial before the U.S. federal District Court for the District of New Jersey.

In their responses, the defendants alleged the invalidity and unenforceability of our reexamined patent on several grounds. They then moved for summary judgment on the invalidity issue, and we filed a cross-motion for partial summary judgment. In February 2001, the district court denied the defendants' motion and granted our cross-motion. The court subsequently entered a final judgment in our favor, confirming the validity and enforceability of the patent. The defendants appealed this judgment to the Court of Appeals for the Federal Circuit.

In addition, Bayer AG and Bayer Corporation filed a patent infringement action in May 2001 against Carlsbad Technology, Inc., arising from Carlsbad's ANDA (IV) filing seeking regulatory approval of its generic version of Cipro<sup>®</sup>. Carlsbad filed two motions for summary judgment. The first motion alleged as a matter of patent procedure that Bayer's patent as it relates to ciprofloxacin should expire in October 2002 and not, as determined by the Patent and Trademark Office, in December 2003. Bayer filed a cross-motion for summary judgment that the expiration date is in December 2003. In its second motion, Carlsbad alleged that ciprofloxacin was obvious in light of the prior art.

If we lost our patent protection for ciprofloxacin, or if the expiration of the patent were accelerated to October 2002, we believe that we would forego significant revenue. We cannot predict the appellate court's decision in these cases with certainty. We intend to continue vigorous action to maintain our ciprofloxacin patent rights in the United States through their normal expiry in December 2003.

*Antitrust actions.* Bayer Corporation has been named as a defendant in 38 putative class action lawsuits, one individual lawsuit and one consumer protection group lawsuit filed in a number of state and federal courts in the United States. Bayer AG has also been named as defendant in 20 of these cases, including the individual lawsuit and the consumer protection group lawsuit; it has been served with process in the individual lawsuit and twelve of the putative class action lawsuits. In addition, Barr Laboratories, Aventis S.A., Hoechst Marion Roussel, Inc., Rugby Laboratories, Inc. and Watson Pharmaceuticals, Inc. have each been named as defendant in one or more of these lawsuits. The plaintiffs in these suits allege that they are direct or indirect purchasers of Cipro<sup>®</sup> who were damaged because Bayer's settlement of the Barr ANDA (IV) litigation prevented generic manufacturers from selling a generic version of Cipro<sup>®</sup>. The plaintiffs allege that the defendants violated various federal antitrust and state business, antitrust, unfair trade practices and consumer protection statutes, and seek treble damages and injunctive relief.

These proceedings are at an early stage. None of the relevant courts has certified a class. The Judicial Panel for Multidistrict Litigation, or MDL panel, has transferred 35 of these cases to the U.S. federal District Court for the Eastern District of New York for coordinated pre-trial proceedings. The Barr settlement is also the subject of ongoing antitrust investigations by the U.S. Federal Trade Commission and by a number of state attorneys general.

Because these cases in the aggregate allege substantial unquantified damages and also seek treble and punitive damages and penalties, it is possible that the ultimate liability could be material to our results of operations and cash flows. Although we cannot predict the outcome of these cases with certainty, we believe that we have meritorious defenses to the antitrust allegations and intend to defend them vigorously.

## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

### *Nifedipine-related actions*

*Patent-related actions.* Since 1997 Bayer AG and Bayer Corporation have been involved in a number of patent infringement actions arising from ANDA (IV)s filed by generic manufacturers seeking regulatory marketing approval for allegedly bio-equivalent versions of our brand-name product Adalat® CC and Pfizer, Inc.'s brand-name product Procardia® XL. The active ingredient of these products is nifedipine. We own patent rights related to nifedipine drug product formulations. In addition, because Pfizer markets Procardia® XL under a license from Bayer, Bayer AG and Bayer Corporation became Pfizer's co-plaintiffs in the infringement actions relating to that product.

In August 1997 Bayer AG and Bayer Corporation filed a patent infringement suit against Elan Pharmaceutical Research Corp. and Elan's parent company, Elan Corp., plc, arising from Elan's ANDA (IV) for a drug product containing nifedipine. In March 1999, the U.S. federal District Court for the Northern District of Georgia granted summary judgment against us, holding that the particular generic product for which Elan sought marketing approval as described in its ANDA would not violate our patent. In May 2000, the U.S. Court of Appeals for the Federal Circuit affirmed this decision.

In March 2001 the same District Court granted summary judgment against Bayer AG and Bayer Corporation in a second ANDA (IV) related suit that we had filed against Elan and later in another action that we had filed against Elan Pharmaceutical Research Corp., Biovail Labs, Inc., Biovail Corp. International and Teva Pharmaceuticals USA, Inc., arising from these parties' commercial sale of an allegedly bio-equivalent nifedipine product. Our appeal against the decisions in these two cases is currently pending before the U.S. Court of Appeals for the Federal Circuit.

Bayer AG and Bayer Corporation have also filed four ANDA (IV) related lawsuits against Biovail and two lawsuits arising from the commercial sale of nifedipine products by Biovail and Teva. These suits are currently pending before the U.S. federal District Court for the District of Puerto Rico. The court has stayed these suits pending resolution of the appeals before the Federal Circuit.

Because defendants have prevailed in some of these lawsuits, it is possible that they may also prevail in the trials and appeals currently pending. We believe, however, that we have meritorious claims in the pending cases, and intend to prosecute these claims vigorously. Because some of our nifedipine dosages have already begun to face generic competition, we do not believe that an adverse result in the pending cases would result in a material amount of additional foregone revenue.

*Antitrust actions.* Biovail has filed an antitrust lawsuit against Bayer AG, Bayer Corporation and Pfizer in the U.S. federal District Court for the District of Western Pennsylvania. Biovail is seeking a declaratory judgment that Bayer's nifedipine patents are invalid. Biovail also seeks damages under federal and state antitrust statutes alleging, among other things, that Bayer illegally asserted its patent rights. The district court has stayed this litigation pending resolution of the nifedipine-related patent infringement actions against Biovail.

This proceeding is at an early stage. However, we believe that we have meritorious defenses to the antitrust allegations, and we intend to defend this case vigorously.

### *Product liability proceedings*

*HIV-related actions.* During the past decade, our U.S. subsidiary Bayer Corporation, as well as other fractionators of plasma products, have been involved in lawsuits alleging that hemophiliacs became infected with the human immunodeficiency virus (HIV), or ultimately developed AIDS, by using clotting factor concentrates derived from human plasma. Plaintiffs have brought actions on these grounds in the United States, Ireland, Italy, Taiwan, Argentina, Canada, Japan, and Germany.

In the United States, a class action against Bayer Corporation and three other defendants consolidated the HIV-related claims of more than 6,000 claimants and claimant groups. The parties resolved this class action through a \$600 million settlement. Bayer Corporation's share of this settlement was approximately \$290 million.

## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

Bayer Corporation has also satisfactorily settled nearly 400 lawsuits by plaintiffs who opted out of the class action. Approximately 20 suits remain pending in the United States. Although Bayer Corporation has prevailed in the majority of cases that have proceeded to trial, plaintiffs were successful in three cases. The juries in each of these cases awarded damages not exceeding \$2 million. In addition, in 1999 a Louisiana jury awarded a plaintiff damages of \$35 million. However, the trial court set this award aside, and an appellate court upheld this decision. Bayer Corporation has since settled this matter in the context of a group settlement of nearly 100 Louisiana cases, of which Bayer Corporation's share was less than \$50 million.

Although Bayer Corporation intends to defend aggressively the remaining HIV-related lawsuits in various countries, we have made what we believe to be appropriate provisions should these suits result in judgments in favor of the plaintiffs. These provisions are not material to the Bayer Group.

*Phenylpropanolamine (PPA) actions.* In late 2000, Bayer Corporation discontinued marketing Alka-Seltzer Plus effervescent medicines containing PPA in the United States, Canada and various Latin American countries in response to a recommendation from the U.S. Food and Drug Administration to all manufacturers of drugs and medicines containing PPA. The FDA issued this recommendation after one epidemiological study of a small number of patients suggested a possible association between PPA and hemorrhagic stroke in women of certain ages. Over 326 class and individual lawsuits have been initiated in the United States against Bayer Corporation. Bayer AG has also been named a defendant in some of the cases, but has not been served with process. The MDL Panel has assigned management of the federal court cases to the U.S. federal District Court for the Western District of Washington. It is probable that additional actions will be initiated there or in other jurisdictions where products containing PPA were marketed. Bayer Corporation believes it has meritorious defenses to these actions and intends to defend them vigorously.

### *Proceedings relating to the World War II era*

Bayer AG was one of a number of defendants in ten class actions filed in recent years before various U.S. federal courts and consolidated in 2000 before the federal District Court for the District of New Jersey. These suits sought class certification on behalf of persons — primarily residents of Eastern European countries — alleging that these persons were victims of forced labor during World War II or medical experiments during the period of national socialist rule prior to and during the war. In addition, one suit related to medical experiments named Bayer AG as sole defendant. The plaintiffs sought unspecified amounts of damages. No class was certified.

In July 2000, the United States, Germany, Israel and several Eastern European states concluded an Executive Agreement providing for the establishment of a federal German foundation to serve as the exclusive source of remedies for all present and future claims that have been or may be asserted against German companies arising out of the national socialist era and World War II. This foundation, called "Remembrance, Responsibility, and the Future", was established by German law in August 2000. Its founders are the German government and a number of German companies, among them Bayer AG. The foundation administers a fund in the amount of DM 10 billion, made available by the German public sector and by German companies, including Bayer AG. The portion of the fund to be contributed by German companies totals DM 5 billion. In 2000, we transferred Bayer's DM 100 million contribution to the fund to the foundation's escrow account.

It is a central element of the Executive Agreement that the foundation may begin payments only when all pending lawsuits are voluntarily dismissed with prejudice, thereby creating legal certainty (*Rechtssicherheit*). Accordingly, the federal District Court for the District of New Jersey dismissed the suits described above in November 2000. Other courts followed in 2001, dismissing World War II era related suits in which Bayer AG was not involved. On May 30, 2001, the German parliament passed a resolution recognizing the achievement of adequate legal certainty, thereby enabling the foundation to begin making payments to victims. Payments began in the summer of 2001.

Under the Executive Agreement, the government of the United States has committed itself to file a "statement of interest" in any new lawsuits filed before a U.S. court against German companies in connection

## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

with national socialist era and World War II-related claims, recommending that the court dismiss the suit. Although the doctrine of separation of powers prevents the U.S. government from compelling the court to comply with its statement of interest, we believe that the probability of any future suit progressing beyond the filing stage is therefore remote.

### [6] Subsequent Events

#### *Aventis CropScience acquisition*

On October 2, 2001, Bayer signed a purchase agreement to acquire Aventis CropScience (ACS) from Aventis (76 percent) and Schering (24 percent) for €7.25 billion, including the assumption of debt of €1.9 billion. Bayer expects to finance this purchase through new borrowings, without increasing equity capital. Bayer plans to organize its Crop Science activities within a new, separate legal entity to be named “Bayer CropScience”. We expect a one-time restructuring charge of approximately €500 million. The closing is expected in the first quarter of 2002. Because we will neither acquire ownership of the StarLink technology nor assume any potential related liabilities from Aventis, we do not believe that we will be liable for any potential claims related to StarLink. As of October 5, 2001, we increased the maximum outstanding principal amount under our European Medium-Term Note program from €2 billion to €8 billion. We anticipate using the proceeds from the sale of debt securities under this expanded program to pay the cash portion of the purchase price for ACS, as well as for general corporate purposes.

#### *Cerivastatin-related legal actions*

In August 2001, we voluntarily ceased marketing our cerivastatin anticholesterol products, sold under the trade names Lipobay and Baycol, in response to reports of serious side effects in some patients. The withdrawal of Lipobay and Baycol caused €0.4 billion loss of revenue compared to budget.

Since this withdrawal, more than 336 lawsuits, many of them putative class actions, have been initiated in the United States against Bayer Corporation and Bayer AG. The actions in the United States have been primarily on theories of product liability, consumer fraud, medical monitoring, predatory pricing and unjust enrichment. These lawsuits seek remedies including compensatory and punitive damages, disgorgement of funds received from the marketing and sale of cerivastatin and the establishment of a trust fund to finance the medical monitoring of former cerivastatin users. The federal cases are being transferred to the U.S. Federal District Court for the District of Minnesota for coordinated discovery and other pre-trial proceedings. In addition, several actions have been initiated against other companies of the Bayer Group in other countries. We expect additional lawsuits to be filed in the United States and elsewhere. If the plaintiffs in these actions were to be successful, it is possible that the ultimate liability could be material to our results of operations and cash flows. We believe that we have meritorious defenses in these actions, and intend to defend them vigorously.

#### *Developments in ciprofloxacin-related patent infringement actions*

In October 2001, the Federal District Court for the Southern District of California denied Carlsbad Technology Inc.’s two motions for summary judgment in our ciprofloxacin-related patent infringement lawsuit against Carlsbad. Carlsbad has appealed the decision denying the first motion to the Court of Appeals for the Federal Circuit. A trial regarding the arguments of obviousness that Carlsbad raised in its second motion is currently scheduled to begin in April, 2002. Carlsbad has since withdrawn all other defenses it had originally raised challenging the validity and enforceability of Bayer AG’s ciprofloxacin patent. In addition, on January 7, 2002, the Court of Appeals for the Federal Circuit heard oral arguments in the defendants’ appeal against the judgment in our actions against Danbury Pharmacal, Schein Pharmaceutical, Mylan Pharmaceuticals, Mylan Laboratories and Reddy Cheminor.

**Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)**

***Developments in Ciprofloxacin-Related Antitrust Actions***

In October 2001, the U.S. federal District Court for the Eastern District of New York ordered that nine cases originally transferred to the federal system by the MDL Panel be remanded to various state courts. Nine cases are currently pending in a California state court, where they should be coordinated under state law rules. Bayer is also involved in state court proceedings occurring in Florida, New York, Kansas, Tennessee and Wisconsin.

***Funding of Federal German Foundation for World War II-related claims***

The founding members of the foundation initiative, including Bayer, committed themselves jointly to cover any shortfall if German companies failed to contribute their full DM 5 billion portion of the fund. On the basis of this commitment, we made a final contribution to the fund of DM 26.1 million in August 2001, adding to the original contribution of DM 100 million that we had paid in 2000 and the increased contribution of DM 10 million paid in 2001. The foundation is now fully funded.

***Plans to divest from certain activities***

On December 6, 2001, our Supervisory Board approved a plan to divest non-core businesses, including Haarmann & Reimer, Rhein Chemie and our 50% interest in Polymer Latex GmbH.

**[7] U.S. GAAP Information**

The Group's consolidated financial statements have been prepared in accordance with IAS, which as applied by the Group, differs in certain significant respects from U.S. GAAP. The effects of the application of U.S. GAAP to net income and stockholders' equity are set out in the tables below:

	<b>Notes</b>	<b>June 30, 2001</b>	<b>June 30, 2001</b>	<b>June 30, 2000</b>
		<b>(\$ million(1))</b>	<b>(€ million)</b>	<b>(€ million)</b>
<b>Net income reported under IAS</b> .....		852	1,006	1,033
Fair value of derivative financial instruments .....	a	(31)	(37)	(7)
Available for sale securities .....	b	—	—	—
Business combinations .....	c	(41)	(48)	(28)
Pensions .....	d	(10)	(12)	(12)
Other .....	e	5	5	20
Deferred tax effect on U.S. GAAP adjustments .....		<u>14</u>	<u>17</u>	<u>—</u>
<b>Net income reported under U.S. GAAP</b> .....		<u>789</u>	<u>931</u>	<u>1,006</u>
<b>Basic and diluted earnings per share under U.S. GAAP</b> ..		<u>1.08</u>	<u>1.28</u>	<u>1.38</u>
<b>Stockholders' equity reported under IAS</b> .....		14,657	17,296	15,156
Fair value of derivative financial instruments .....	a	—	—	(7)
Available for sale securities .....	b	—	—	1,203
Business combinations .....	c	711	839	905
Pensions .....	d	926	1,093	1,126
Other .....	e	96	114	95
Deferred tax effect on U.S. GAAP adjustments .....		<u>(409)</u>	<u>(483)</u>	<u>(537)</u>
<b>Stockholders' equity reported under U.S. GAAP</b> .....		<u>15,981</u>	<u>18,859</u>	<u>17,941</u>

**Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)**

	<u>Notes</u>	<u>June 30, 2001</u>	<u>June 30, 2001</u>	<u>June 30, 2000</u>
		(\$ million <sup>(1)</sup> )	(€ million)	(€ million)
<b>Components of stockholders' equity in Accordance with U.S. GAAP:</b>				
Capital stock of Bayer AG .....		1,585	1,870	1,870
Capital reserves of Bayer AG .....		2,493	2,942	2,942
Retained earnings .....		10,569	12,473	11,707
Accumulated other comprehensive income:				
Unrealized market value adjustment on securities available for sale (net of taxes of \$12 million, €14 million, and €28 million) .....		381	450	1,175
Unrealized market value adjustment on derivative financial instruments designated as cash flow hedges (net of taxes of \$20 million, €24 million, and € nil) .....		(31)	(37)	—
Additional minimum pension liability (net of taxes of \$76 million, €90 million, and €92 million) .....		(105)	(124)	(126)
Translation differences .....		<u>1,089</u>	<u>1,285</u>	<u>373</u>
<b>Total</b> .....		<u><u>15,981</u></u>	<u><u>18,859</u></u>	<u><u>17,941</u></u>

(1) The 2001 U.S. dollar figures have been translated at an exchange rate of \$0.8474 = €1.00. Such translations should not be construed as representations that the euro amounts represent, or have been or could be converted into, United States dollars at that or any other rate.

**a. Fair Value of Derivative Financial Instruments**

Effective January 1, 2001, the Group began applying IAS 39 “Financial Instruments: Recognition and Measurement” and Statement of Financial Accounting Standard (“SFAS”) 133, “Accounting for Derivative Instruments and Hedging Activities”. As a result, derivative financial instruments are recorded in the balance sheet at their fair values under both IAS and US GAAP. Prior to the adoption of IAS 39, the Group only recognized appreciation in the fair value of derivative instruments relating to currency risks on anticipated or pending transactions, effectively treating them like cash flow hedges. Prior to the adoption of SFAS 133, these instruments were marked to market through the income statement in accordance with U.S. GAAP applicable at the time. The difference between IAS and U.S. GAAP equity and net income for the six months ended June 30, 2000 arises from the recognition of a loss, and a corresponding asset, relating to anticipated cash flow forward contracts under U.S. GAAP. The difference between IAS and U.S. GAAP net income for the six months ended June 30, 2001 arises from the realization of gains on cash flow hedges under IAS that had already been recognized under U.S. GAAP prior to the adoption of SFAS 133. As the fair value of cash flow hedges has been recognized under both IAS and U.S. GAAP, there is no difference between total equity under the two bodies of accounting principles at June 30, 2001. However, differences in the components of equity remain as a result of the amounts previously recorded in income under U.S. GAAP.

**b. Available for Sale Securities**

Effective January 1, 2001, the Group began applying IAS 39 “Financial Instruments: Recognition and Measurement”. As a result, investments in debt and certain equity securities are classified as trading, available-for-sale, or held-to-maturity, depending on management’s intent and ability with respect to holding such investments under IAS and U.S. GAAP. All investments that have been classified as available-for-sale are carried at fair value, with any unrealized gains or losses recorded as a separate component of equity.

## Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)

Prior to the adoption of IAS 39, investments in debt and certain equity securities are reflected in the balance sheet at nominal value less any necessary write-downs under IAS, resulting in a difference between total equity under IAS and U.S. GAAP.

### c. Business Combinations

Prior to the adoption of IAS 22 (revised 1993) on January 1, 1995, the Group wrote-off all goodwill directly to equity in accordance with IAS existing at that time. The adoption of IAS 22 (revised 1993) did not require prior period restatement. Accordingly, a U.S. GAAP difference exists with respect to the recognition of goodwill and amortization before January 1, 1995. For the purpose of the reconciliation to U.S. GAAP, the pre-1995 goodwill is being amortized through the income statement over the estimated useful lives between 20 and 40 years. During the first half of 2001, the Group wrote-off €27 million of goodwill capitalized under U.S. GAAP. The write-off was due to the planned disposal of the entity to which the goodwill relates.

### d. Pension Provisions

Under IAS, pension costs and similar obligations are accounted for in accordance with IAS 19, “Employee Benefits”. For purposes of U.S. GAAP, pension costs for defined benefit plans are accounted for in accordance with SFAS No. 87 “Employers’ Accounting for Pensions” and the disclosure is presented in accordance with SFAS No. 132 “Employers’ Disclosures about Pensions and Other Post-retirement Benefits”. In accordance with the accounting treatment at December 31, 2000, the adjustment between IAS and U.S. GAAP comprises amortization of the unrecognized transition obligation over the remaining average service lives of employees and the recognition of an additional minimum liability.

### e. Other

There are also differences between IAS and U.S. GAAP in relation to (1) asset impairments, (2) restructuring provisions, (3) equity compensation, (4) other employee benefits and (5) in-process research and development. None of the differences are individually significant; therefore they are shown as a combined total.

## Additional U.S. GAAP disclosures

### *Discontinued operations*

Under IAS, the Group has classified DyStar, EC Erdölchemie and Fibers as discontinuing operations. Under U.S. GAAP, DyStar does not meet the requirements for classification as a discontinued operation, as the formal plan for disposal of this operation will not be completed within one year. The following tables present net income and earnings per share for continuing and discontinued operations in accordance with U.S. GAAP.

	<b>June 30, 2001</b>	<b>June 30, 2001</b>	<b>June 30, 2000</b>
	(\$ million)	(€ million)	(€ million)
<b>Income from continuing operations</b> .....	531	627	946
Discontinued Operations — net of tax .....	258	304	60
<b>Net income reported under U.S. GAAP</b> .....	789	931	1,006

**Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)**

	<u>2001</u>	<u>2001</u>	<u>2000</u>
	(\$ million)	(€ million)	(€ million)
<b>Earnings per share</b>			
Basic and diluted:			
Income from continuing operations .....	.73	.86	1.30
Income from discontinued operations .....	<u>.35</u>	<u>.42</u>	<u>.08</u>
<b>Basic and diluted earnings per share .....</b>	<u><u>1.08</u></u>	<u><u>1.28</u></u>	<u><u>1.38</u></u>

***Comprehensive Income***

SFAS No. 130 “Reporting Comprehensive Income” established standards for the reporting and display of comprehensive income and its components. Comprehensive income includes net income on all changes in equity during a period that arise from non-owner sources, such as foreign currency items and unrealized gains and losses on securities available-for-sale. The additional disclosures required under U.S. GAAP are as follows:

	<u>June 30,</u>	<u>June 30,</u>
	<u>2001</u>	<u>2000</u>
	(€ million)	
Net income under U.S. GAAP .....	931	1,006
Other comprehensive income:		
Unrealized market value adjustment on available-for-sale securities (net of taxes of € nil and €13 million, respectively) .....	(902)	610
Unrealized market value adjustment on derivative financial instruments designated as cash flow hedges (net of taxes of €24 million and € nil, respectively) .....	(37)	—
Foreign currency translation adjustment .....	<u>707</u>	<u>83</u>
<b>Comprehensive income under U.S. GAAP .....</b>	<u><u>699</u></u>	<u><u>1,699</u></u>

***Effect of New Accounting Pronouncements***

**U.S. GAAP**

In June 2001, the Financial Accounting Standards Board approved SFAS 141 “Business Combinations” and SFAS 142 “Goodwill and Other Intangible Assets”. SFAS 141 requires the purchase method of accounting to be used for all business combinations initiated after June 30, 2001, establishes specific criteria for the recognition of intangible assets separately from goodwill, and requires unallocated negative goodwill to be written off immediately as an extraordinary gain. Bayer will apply SFAS 141 to all business combinations for which purchase agreements are signed after June 30, 2001. SFAS 142 addresses the accounting for goodwill and identifiable intangible assets subsequent to their acquisition. Amortization of goodwill will discontinue upon adoption of SFAS 142. In addition, goodwill recorded as a result of business combinations completed during the six-month period ended December 31, 2001 will not be amortized. All goodwill and intangible assets will be tested for impairment in accordance with the provision of this statement. The Group will apply the provisions of SFAS 142 beginning January 1, 2002. Bayer has not completed its analysis of these standards and, accordingly, has not determined what effect the adoption of SFAS 141 and 142 will have on the Group’s financial position, results of operations or cash flows.

In June 2001, the Financial Accounting Standards Board approved SFAS 143 “Accounting for Asset Retirement Obligations”. SFAS 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset. SFAS 143 is effective for fiscal periods beginning after June 15, 2002. Early adoption is encouraged and initial application of this Statement shall be as of the beginning of an entity’s fiscal year. The Group will apply SFAS 143 beginning

**Notes to the Unaudited Interim Financial Statements of the Bayer Group — (Continued)**

January 1, 2003. Bayer has not completed its analysis of this standard and, accordingly, has not determined what effect the adoption of SFAS 143 will have on the Group's financial position, results of operations or cash flows.

In August 2001, the Financial Accounting Standards Board approved SFAS 144 "Accounting for the Impairment or Disposal of Long-Lived Assets". SFAS 144 retains the requirements of SFAS 121 to recognize an impairment loss only if the carrying amount of a long-lived asset is not recoverable from its undiscounted cash flows and measure an impairment loss as the difference between the carrying amount and fair value of the asset. SFAS 144 requires a probability-weighted cash flow estimation approach and establishes a "primary-asset" approach to determine the cash flow estimation period for groups of assets and liabilities. SFAS 144 is effective for fiscal years beginning after December 15, 2001, and interim periods within those fiscal years, with early application encouraged. The Group will apply SFAS 144 beginning January 1, 2002. Bayer has not completed its analysis of this standard and, accordingly, has not determined what effect the adoption of SFAS 144 will have on the Group's financial position, results of operations or cash flows.

