

BAYER AKTIENGESELLSCHAFT

Form 20-F

June 27, 2003

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As filed with the Securities and Exchange Commission on June 27, 2003

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

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**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 001-16829

**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 W11**

**Kaiser-Wilhelm-Allee**

**51368 Leverkusen, GERMANY**

*(Address of principal executive offices)*

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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:**

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American Depositary Shares representing Bayer AG  
ordinary shares of no par value  
Bayer AG ordinary shares of no par value

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New York Stock Exchange  
New York Stock Exchange\*\*

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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.

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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, 2002, 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 annual report 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 that 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 annual report.

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

We are a German corporation. All of our directors and executive officers 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 judgments against them in the United States, even if these judgments are of U.S. courts and are based on the civil liability provisions of the U.S. securities laws.

If you wish to execute the judgment of a foreign court in Germany, 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 judgment with respect to civil liability under the U.S. federal securities laws if that judgment is final as a matter of U.S. law. In granting the order, the German court will not enquire whether the U.S. judgment 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 judgment was obtained did not receive service of process adequate to permit a proper defense, did not otherwise acquiesce in the original action and raises the lack of service of process as a defense against the grant of the execution order;

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the judgment would conflict with the final judgment of a German court or with the final judgment of another foreign court that is recognizable under German law;

recognition of the judgment would violate an important principle of German law, especially basic constitutional rights; or

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there is a lack of reciprocity between Germany and the jurisdiction whose court rendered the original judgment.

You should be aware that German courts hold certain elements of some U.S. court judgments, for example punitive damages, to violate important principles of German law. Judgments 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.



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**PART I**

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

**Directors and Senior Management**

Not applicable.

**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, 2002, from our consolidated financial statements. We have prepared our consolidated financial statements in accordance with International Financial Reporting Standards or IFRS and, where indicated, in accordance with U.S. Generally Accepted Accounting Standards or U.S. GAAP. Since 2002, IFRS is the term for the entire body of accounting standards issued by the International Accounting Standards Board, replacing the earlier IAS, or International Accounting Standards. Individual accounting standards that the IASB issued prior to this change in terminology continue to use the prefix IAS. Note 44 to our consolidated financial statements included in Item 18 of this annual report describes the reconciliation of significant differences between IFRS and U.S. GAAP.

Since January 1, 1999, we have prepared our financial statements in European Union euros (€). In this annual report we have translated certain euro amounts into U.S. dollar amounts at the rate of \$1.0485 = €1.00, the noon buying rate of the Federal Reserve Bank of New York on December 31, 2002. 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.

**Table of Contents****Consolidated Income Statement Data**

|  | Year ended December 31,                     |        |        |         |        |         |
|--|---|--------|--------|---------|--------|---------|
|  | 2002  | 2002   | 2001   | 2000    | 1999   | 1998(1) |
|  | \$<br>( in millions, except per share data) |        |        |         |        |         |
| <b>IFRS:</b>                           |   |        |        |         |        |         |
| Net sales                              | 31,061                                      | 29,624 | 30,275 | 30,971  | 27,320 | 28,062  |
| Of which discontinuing operations      | 698   | 666    | 1,105  | 1,850   | 3,357  | 5,981   |
| <b>Operating result</b>                | 1,650                                       | 1,574  | 1,611  | 3,287   | 3,357  | 3,155   |
| Of which discontinuing operations      | 1,028                                       | 980    | 406    | 172     | 1,195  | 359     |
| Non-operating result                   | 648   | (618)  | (496)  | (297)   | (521)  | (427)   |
| Income before income taxes             | 1,002                                       | 956    | 1,115  | 2,990   | 2,836  | 2,728   |
| Income taxes                           | 112   | 107    | (154)  | (1,148) | (818)  | (1,113) |
| Income after taxes                     | 1,115                                       | 1,063  | 961    | 1,842   | 2,018  | 1,615   |
| Minority stockholders' interest        | (3)   | (3)    | 4      | (26)    | (16)   | (1)     |
| <b>Net income</b>                      | 1,111                                       | 1,060  | 965    | 1,816   | 2,002  | 1,614   |
| Average number of shares in issue      | 730   | 730    | 730    | 730     | 730    | 730     |
| Basic net income per share             | 1.52  | 1.45   | 1.32   | 2.49    | 2.74   | 2.21    |
| Diluted net income per share           | 1.52  | 1.45   | 1.32   | 2.49    | 2.74   | 2.21    |
| Dividends per share                    | 0.94  | 0.90   | 0.90   | 1.40    | 1.30   | 1.02    |
| <b>U.S. GAAP:</b>                      |   |        |        |         |        |         |
| Net income                             | 1,339                                       | 1,277  | 800    | 1,783   | 1,967  |         |
| Basic and diluted net income per share | 1.83  | 1.75   | 1.10   | 2.44    | 2.69   |         |

(1) The 1998 figures have been restated from German marks into euros at the irrevocably fixed conversion rate of DM 1.95583 = 1.00.

**Consolidated Balance Sheet Data**

|  | December 31,                               |        |        |        |        |         |
|--|--|--------|--------|--------|--------|---------|
|  | 2002                                       | 2002   | 2001   | 2000   | 1999   | 1998(1) |
|  | \$<br>(in millions, except per share data) |        |        |        |        |         |
| <b>IFRS:</b>                             |  |        |        |        |        |         |
| Total Assets                             | 43,714                                     | 41,692 | 37,039 | 36,451 | 31,279 | 29,377  |
| Of which discontinuing operations        | 0  | 0      | 820    | 1,662  | 1,440  | 5,238   |
| Stockholders' equity                     | 16,079                                     | 15,335 | 16,922 | 16,140 | 15,006 | 12,568  |
| Liabilities                              | 27,509                                     | 26,237 | 20,019 | 20,074 | 16,097 | 16,598  |
| Of which long-term financial obligations | 7,673                                      | 7,318  | 3,071  | 2,803  | 2,359  | 2,404   |
| Of which discontinuing operations        | 0  | 0      | 233    | 651    | 574    | 2,354   |
| <b>U.S. GAAP:</b>                        |  |        |        |        |        |         |
| Stockholders' equity                     | 17,545                                     | 16,734 | 18,300 | 19,110 | 17,177 |         |
| Total assets                             | 44,737                                     | 42,668 | 37,831 | 38,740 | 32,769 |         |

(1) The 1998 figures have been restated from German marks into euros at the irrevocably fixed conversion rate of DM 1.95583 = 1.00.

**Table of Contents****Dividends**

The following table indicates the dividends per share paid from 1998 to 2001. 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*.

|                               | <u>2002</u> | <u>2001</u> | <u>2000</u> | <u>1999</u> | <u>1998</u> |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|
| Total dividend ( in millions) | 657         | 657         | 1,022       | 949         | 747         |
| Dividend per share ( )        | 0.90        | 0.90        | 1.40        | 1.30        | 1.02        |

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 U.S. dollar to the euro 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 Depository of any cash dividends paid in euro and the dollar translation of our results of operations and financial condition.

| <u>Year</u> | <u>Period End</u> | <u>Average</u> | <u>High</u> | <u>Low</u> |
|-------------|-------------------|----------------|-------------|------------|
| 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     |
| 2002        | 1.0485            | 0.9454         | 1.0485      | 0.8594     |

| <u>Previous six months</u> | <u>High</u> | <u>Low</u> |
|----------------------------|-------------|------------|
| December 2002              | 1.0485      | 0.9927     |
| January 2003               | 1.0861      | 1.0361     |
| February 2003              | 1.0875      | 1.0708     |
| March 2003                 | 1.1062      | 1.0545     |
| April 2003                 | 1.1180      | 1.0621     |
| May 2003                   | 1.1853      | 1.1200     |

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### **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 annual report before deciding to invest in our shares or ADSs. The risks described below are the ones we consider material. However, they are not the only ones that may exist. Additional risks not known to us or that we consider immaterial may also have an impact on our business operations. 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, Biological Products segment and our Consumer Care, Diagnostics segment 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

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substance. In addition, in some cases we may voluntarily cease marketing a product even in the absence of regulatory action.

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.

### ***Litigation and administrative claims could harm our operating results and cash flows***

We are or could become involved in a number of legal proceedings. See Item 8, *Financial Information – Legal Proceedings*. Each of these proceedings or potential proceedings could involve substantial claims for damages or other payments. These proceedings include claims alleging product liability and claims alleging antitrust violations. If our opponents in these lawsuits obtain judgments against us, we could be required to pay substantial damages and related liabilities.

We are also plaintiff in lawsuits to enforce our patent rights in our products. If we are not successful in these actions, we would expect our revenue from these products to decline as generic competitors enter the market.

In cases where we believe it appropriate, we have established provisions to cover potential litigation-related costs. Increased risks currently result from litigation commenced in the United States after we voluntarily withdrew Lipobay/ Baycol and products containing PPA from the market. If plaintiffs in these actions substantially prevail despite our defense arguments, we could incur charges that exceed our insurance coverage. This event could materially affect our business and financial condition. There is considerable uncertainty associated with these proceedings; currently, therefore, we cannot accurately estimate our potential liability in connection with these actions. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

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### ***The loss of patent protection or ineffective patent protection for marketed products 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 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. 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 segment, our Polyurethanes, Coatings, Fibers segment and our Chemicals segment), 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. If we fail to effectively integrate a new business or if integration results in significant unexpected costs, our results of operations could suffer.

### ***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;

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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 – 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 – 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.

***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, 2002, we had entered into forward foreign exchange contracts and currency swaps with a total notional value of 3.0 billion. See Item 11, *Quantitative and Qualitative Disclosures About Market Risk*.

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Bayer Aktiengesellschaft, or Bayer AG, is a stock corporation (*Aktiengesellschaft*) organized under the laws of the Federal Republic of Germany. In this annual report, 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 annual report.

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 Wescott. 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. Farbenindustrie AG, or I.G. Farben. 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 2000 we have incurred capital expenditures as follows:

|                                      | <u>2002</u>         | <u>2001</u>  | <u>2000</u>  |
|--------------------------------------|---------------------|--------------|--------------|
|                                      | (euros in millions) |              |              |
| Pharmaceuticals, Biological Products | 178                 | 375          | 482          |
| Consumer Care, Diagnostics           | 272                 | 238          | 167          |
| Animal Health                        | 26                  | 45           | 42           |
| CropScience                          | 297                 | 199          | 194          |
| Plastics, Rubber                     | 504                 | 536          | 556          |
| Polyurethanes, Coatings, Fibers      | 506                 | 468          | 338          |
| Chemicals                            | 285                 | 444          | 358          |
|                                      | <u>2,068</u>        | <u>2,305</u> | <u>2,137</u> |
| Total                                | <u>2,068</u>        | <u>2,305</u> | <u>2,137</u> |

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 2001 we spent 0.5 billion on acquisitions, including rights to manufacture and market products that detect hepatitis C and HIV antibodies, as well as the corn herbicide *Mikado*®. We also made a 93 million equity





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investment in CuraGen. In 2002 we spent a total of 7.9 billion on acquisitions, mainly for the acquisition of Aventis CropScience effective June 1, 2002 from Aventis and Schering. Approval of this acquisition by the relevant antitrust authorities, particularly in Europe and the United States, was conditional upon our divesting or outlicensing a number of products. We also acquired Visible Genetics Inc. in Canada and Tectrade A/S in Denmark.

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. We continued to streamline our portfolio through 2000, divesting our animal health biologicals and solar-grade silicon businesses, Troponwerke, 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 product line and classified the remainder of our Fibers business group under Discontinuing Operations. In May 2002 we reclassified Fibers as part of our continuing operations. See Item 5, *Operating and Financial Review and Prospects Overview*. In May 2001 we sold our interest in the EC Erdölchemie joint venture, which we had previously classified under Discontinuing Operations. As part of the streamlining of our portfolio, we sold Haarmann & Reimer effective September 30, 2002. We also sold the remaining 30 percent of our Agfa business segment, of which we had already divested 70 percent in 1999. Effective March 1, 2002 we sold our 94.9 percent interest in Bayer Wohnungen. In addition, we sold a large part of the global household insecticides business of our Consumer Care business group. As a further part of our drive to streamline our portfolio, we divested our French and Spanish generic pharmaceutical operations. We also sold our 50 percent interest in PolymerLatex. This transaction was closed on May 9, 2003.

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**BUSINESS**

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 330 consolidated subsidiaries. We are organized into seven business segments—Pharmaceuticals, Biological Products; Consumer Care, Diagnostics; Animal Health; CropScience; Plastics, Rubber; Polyurethanes, Coatings, Fibers; and Chemicals.

At their annual meeting in April 2002, Bayer AG's shareholders approved a plan to transform Bayer AG into a management holding company structure. The new holding company structure, which evolves out of our historical four pillar strategy, calls for the division of our business operations among four new, wholly-owned operating subsidiaries. Each of these will comprise one or more current business segments. The new subsidiaries are:

*Bayer HealthCare AG* (consisting of our three health care segments: Pharmaceuticals, Biological Products; Consumer Care, Diagnostics; and Animal Health);

*Bayer CropScience AG* (consisting of our CropScience segment);

*Bayer Polymers AG* (consisting of our Plastics, Rubber segment and our Polyurethanes, Coatings, Fibers segment); and

*Bayer Chemicals AG* (consisting of our Chemicals segment).

Under the plan, we have also created three additional subsidiaries (Bayer Technology Services GmbH, Bayer Business Services GmbH and Bayer Industry Services GmbH & Co. oHG). These will act as service companies that support the four operating subsidiaries as well as Bayer AG.

Under our plan for this new structure, we expect to transfer most of Bayer AG's assets to the new subsidiaries. As a matter of German law, Bayer AG's shareholders must approve these transfers. At the April 2002 annual shareholders meeting, the shareholders approved the transfer of assets to Bayer CropScience AG, with economic effect from January 1, 2002. At the annual shareholders' meeting in April 2003, Bayer AG's shareholders approved the transfer of assets to the other three operating companies, as well as to the three service companies. Our transformation to the new holding company structure will be complete when these asset transfers have been recorded in the commercial register. However, at the April 2003 annual meeting, Bayer AG's shareholders resolved that, for tax and accounting purposes, the transformation shall have retroactive economic effect as from January 1, 2003 for Bayer HealthCare and Bayer Technology Services, as from July 1, 2003 for Bayer Chemicals and as from October 1, 2003 for Bayer Polymers, Bayer Business Services and Bayer Industry Services.

A shareholder of Bayer AG has filed a lawsuit in the regional court of Cologne, Germany (*Landgericht Köln*), challenging the planned new structure. The transfers of assets to our new subsidiaries cannot be recorded in the commercial register while this case is pending. See Item 8, *Financial Information—Legal Proceedings*.

Under the new structure, Bayer AG's Board of Management would continue to determine the overall strategy of the Bayer Group and control resource allocation. Bayer AG would nominate the management of the subsidiary Group companies and set each company's performance criteria. These new entities will be wholly owned by Bayer AG, although we may consider strategic partnerships, particularly for our Health Care and Chemicals businesses. In our Pharmaceuticals business, we may consider entering into collaborations without being bound by a strict minimum ownership percentage, if we believe that such collaborations are in the best interest of our shareholders. We may also consider entering into collaborations in the Polymers sector, particularly in the area of production.

For the year ended December 31, 2002, Bayer reported total sales of 29.6 billion, an operating result of 1.6 billion, and net income of 1.1 billion. Sales from continuing operations amounted to 29.0 billion. As of December 31, 2002, we employed 122,600 people worldwide.

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The following table shows a breakdown by region of our sales in 2002:

| Region                            | Sales               |                       |
|-----------------------------------|---------------------|-----------------------|
|                                   | (euros in millions) | (percentage of total) |
| Europe                            | 13,537              | 46.7                  |
| North America                     | 8,992               | 31.1                  |
| Asia/Pacific                      | 3,927               | 13.6                  |
| Latin America/ Africa/Middle East | 2,502               | 8.6                   |

Portfolio optimization has for many years been the focus of our strategy. In the past year, we completed the largest acquisition in the history of the company with the purchase of Aventis CropScience, while completing a series of divestitures with an aggregate value of approximately 5.5 billion under generally difficult market conditions. In the CropScience business, we continue to focus on integration measures and on further increasing our market share. In Plastics we believe opportunities exist to expand our market position, particularly in the area of high value plastics. Substantial development potential exists in Asia, especially in China. We also believe that there is a significant potential for improving earnings in our Polymers business. In our Chemicals business, we have significantly restructured our activities over the past years. We will continue to focus these efforts particularly on Specialty Chemicals, and we may consider entering into strategic partnerships in business areas where we have identified strategically meaningful opportunities.

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, BIOLOGICAL PRODUCTS****Overview**

Our Pharmaceuticals, Biological Products segment (formerly Pharmaceuticals) focuses on the development and marketing of ethical pharmaceuticals (medications requiring a physician's prescription and sold under a specific brand name) as well as biological products (for example, blood plasma products) and recombinant protein therapies. This segment formerly consisted of a single business group responsible for both pharmaceutical and biological products. Beginning in 2002, we have organized the segment internally into separate Pharmaceuticals and Biological Products business groups. The following table shows the segment's performance for the last three years.

|  | 2002                | 2001  | 2000  |
|--|---------------------|-------|-------|
|  | (euros in millions) |       |       |
| External net sales   | 4,767               | 5,729 | 6,140 |
| Percentage of total sales (continuing operations)            | 16.5                | 19.6  | 21.1  |
| Intersegment sales   | 33                  | 38    | 39    |
| Operating result before exceptional items(1)                 | 151                 | 383   | 1,165 |
| Percentage of total operating result (continuing operations) | 15.3                | 20.8  | 35.6  |
| Exceptional items(1)   | (339)               | (332) | (5)   |
| Operating result   | (188)               | 51    | 1,160 |

(1) In this table and the similar tables presented for our other segments, we use the term "exceptional items" to identify and segregate certain items reported in our operating results for the segment. These items relate primarily to restructuring activities, impairment charges and gains and losses from sales of operations. This use of "exceptional items" is consistent with our management's internal reporting process. Our management believes that this presentation provides the reader with additional information about our core activities at the Bayer Group and segment levels. See also Note 7 to our consolidated financial statements.



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

| Product    | 2002                      |                             | 2001                      |                             | 2000                      |                             |
|------------|---------------------------|-----------------------------|---------------------------|-----------------------------|---------------------------|-----------------------------|
|            | Sales (euros in millions) | Percentage of segment sales | Sales (euros in millions) | Percentage of segment sales | Sales (euros in millions) | Percentage of segment sales |
| Cipro      | 1,411                     | 29.6                        | 1,964                     | 34.3                        | 1,785                     | 29.1                        |
| Adalat     | 800                       | 16.8                        | 975                       | 17.0                        | 1,155                     | 18.8                        |
| Kogenate   | 400                       | 8.4                         | 250                       | 4.4                         | 491                       | 8.0                         |
| Gamimune-N | 333                       | 7.0                         | 343                       | 6.0                         | 350                       | 5.7                         |

**Segment Strategy**

We are in the process of bundling our health care businesses (including Pharmaceuticals, Biological Products) into a single new, wholly-owned subsidiary of Bayer AG. See *Business*.

Our strategic priorities for the Pharmaceuticals, Biological Products segment include:

restructuring our business to adjust the cost base, especially for research and development, without stifling our potential for long-term growth, and to evaluate potential strategic partnerships in order to fully exploit the value of the business;

together with our co-promotion partner GlaxoSmithKline, continuing the launch in major European markets of Levitra, our vardenafil erectile dysfunction product, and preparing for Levitra's expected launch in the United States;

focusing on the development of key projects in the pipeline;

expanding into the oncology area; and

increasing the market share and profitability of our Kogenate recombinant Factor VIII clotting factor.

In addition to our immediate priorities, life cycle management remains a continuous element of our strategy. Successful life cycle management enables us to extend the commercial success of established products. See *Research and Development* *Life Cycle Management*.

**Major Products**

Ciprofloxacin, marketed under the trademark *Cipro*® in the United States and *Ciproxin*®, *Ciproxine*®, *Ciprobay*® and *Ciflox*® in other countries, is a broad-spectrum antimicrobial agent 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. It is also approved for the treatment of anthrax. In addition, in the United States in January 2003, we launched Cipro XR in a 500 mg extended release tablet for once daily administration in the treatment of uncomplicated urinary tract infections. In October 2002 we submitted to the FDA an application for approval of a 1,000 mg tablet of Cipro XR for once daily therapy of complicated urinary tract infections. Cipro is our leading pharmaceutical product.

Moxifloxacin, marketed under the tradename *Avalox*® in the United States and *Avelox*®, *Izilox*® and *Actira*® in other countries, is an antibiotic used to treat common bacterial respiratory tract infections. We currently market Avelox in more than 60 countries. It is indicated for the treatment of community-acquired pneumonia, acute exacerbations of chronic bronchitis and acute sinusitis. In late 2001 we launched *Avelox i.v.*®, a new intravenous form of this product, in the United States, our most important market for this product in terms of sales, and subsequently in other markets.

*Adalat*® 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. Calcium antagonists can reduce blood pressure and improve blood supply to heart tissue.



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*Kogenate® FS* (*Kogenate® Bayer* in the EU) is a genetically engineered recombinant version of the protein Factor VIII (fVIII). Patients with hemophilia A cannot produce sufficient fVIII, and their blood therefore cannot clot properly. Physicians use both plasma-derived and recombinant fVIII to treat hemophilia. Because recombinant products like Kogenate 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. The production issues highlighted by the FDA inspections in late 2000 have been resolved.

We supply recombinant fVIII to Aventis Behring, which markets it under the brand name *Helixate FS®*. 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 anti diabetic drugs.

*Gamimune®/Polyglobin®* is a plasma-derived concentrate of human antibodies (*Intra-Venous Immunoglobulin G*, or IVIG) registered 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.

*Prolastin®* (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 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 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. Physicians use Nimotop to treat 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. 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®* 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.

### *Microbial resistance to antibiotics*

The development by microbes of resistance to antibiotics is a cause for concern for the medical community. Resistance development is a natural process. It is almost certainly impossible to eliminate it altogether. Although emergent ciprofloxacin or moxifloxacin resistance could become a problem on an isolated, individual-patient basis, we do not believe that microbial resistance will impair the general clinical usefulness of these two products in large patient populations in the foreseeable future.

We actively 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. This includes using antibiotics when not indicated, for example, for treating viral infections, but it also includes not using the most efficacious antibiotics when there is a need for antibacterial treatment. To provide physicians and patients with information on how they can use antibiotics appropriately, we have initiated the LIBRAINITIATIVE.COM project to collect data on bacterial resistance on a global basis.



**Table of Contents****Markets and Distribution**

The Pharmaceuticals, Biological Products 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>2002</u>         | <u>2001</u>  | <u>2000</u>  |
|-----------------------------------|---------------------|--------------|--------------|
|                                   | (euros in millions) |              |              |
| Europe                            | 1,411               | 1,629        | 1,698        |
| North America                     | 2,084               | 2,637        | 2,812        |
| Asia/Pacific                      | 884                 | 1,022        | 1,159        |
| Latin America/ Africa/Middle East | 388                 | 441          | 471          |
|                                   | <u>4,767</u>        | <u>5,729</u> | <u>6,140</u> |

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

|                                | <u>2002</u>         | <u>2001</u>  | <u>2000</u>  |
|--------------------------------|---------------------|--------------|--------------|
|                                | (euros in millions) |              |              |
| Cipro/ Ciprobay                | 1,411               | 1,964        | 1,785        |
| Adalat                         | 800                 | 975          | 1,155        |
| Kogenate                       | 400                 | 250          | 491          |
| Gamimune N                     | 333                 | 343          | 350          |
| Glucobay                       | 287                 | 312          | 311          |
| Avelox                         | 280                 | 181          | 132          |
| Trasylol                       | 154                 | 136          | 104          |
| Prolastin                      | 151                 | 131          | 140          |
| Nimotop                        | 111                 | 120          | 129          |
| Fraction V products            | 85                  | 101          | 118          |
|                                | <u>4,012</u>        | <u>4,513</u> | <u>4,715</u> |
| <i>Sum of top ten products</i> |                     |              |              |
| <i>All other products</i>      | 755                 | 1,216        | 1,425        |
|                                | <u>4,767</u>        | <u>5,729</u> | <u>6,140</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;

currency effects resulting from transactions in countries outside the euro zone;

competition from large pharmaceutical companies in the 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, Labor and Welfare.

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We currently produce the active ingredients for our ethical pharmaceutical products almost exclusively at the Bayer facilities in Wuppertal and Leverkusen, Germany. 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 Shiga, Japan.

We obtain the raw materials for our ethical active ingredients partly from Bayer's Chemicals business segment and partly from third parties in Europe and Asia. Strategic reserves of our products help us ensure an unbroken supply chain. We obtain additional ingredients and packaging materials from diverse suppliers on a worldwide basis. We endeavor to approve several suppliers for each required material. At the same time, we are

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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 produce biological raw materials at our facilities in Clayton, North Carolina and, under license from Genentech, recombinant fVIII in Berkeley, California. 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.

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 Levitra (vardenafil), our erectile dysfunction medication, currently approved in the EU and being launched in Germany and other major European markets. We expect approval in the United States and Japan. See *New Products*. In January 2003 Bayer and Aventis terminated negotiations regarding the establishment of a joint venture for biological products.

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., Novartis, and AstraZeneca are market leaders in the area of hypertension and coronary heart disease therapy. The market leaders for oral antidiabetics are Takeda, GlaxoSmithKline and Bristol-Myers Squibb. The erectile dysfunction market currently is dominated by Pfizer. Lilly has also recently entered the erectile dysfunction market. In cytostatics, Roche and Bristol-Myers Squibb have the largest market shares. 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.

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

We allocate the largest portion of our research and development budget to the Pharmaceuticals, Biological Products segment. Within this 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 diabetes. Furthermore, we plan to steadily expand our activities in our recently established therapeutic area, oncology. Our current research and development portfolio also includes the following therapeutic areas: obesity, 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, 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 collaborations with third parties. See *Research and Development*.

The segment's largest research and development facilities are located in Wuppertal, Germany; West Haven, Connecticut; Berkeley, California and Kyoto, Japan.

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

We apply life cycle management measures to our marketed products to expand the scope of possible treatment opportunities by identifying new indications and improved formulations. 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: seventeen years after the patent protection for nifedipine, its key component, expired, the drug generated 800 million in sales in 2002. Similarly, as our original patent for Ciprofloxacin expires in various jurisdictions, we are implementing life

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cycle management measures, such as improved formulations and dosage forms, for that drug. See *Major Products*.

*New products*

We received marketing approval from the European Commission in March 2003 for *Levitra*®, our erectile dysfunction medication. Levitra has already been launched in Germany and other major European markets. We expect to receive final marketing approval in the United States in the second half of 2003. The application that we filed with the Japanese authorities in December 2001 is currently under review. See Item 8, *Financial Information - Legal Proceedings* for a discussion of the intellectual property status in the United States of Levitra and other erectile dysfunction medications.

*Gamunex*

*Gamunex* is a plasma-derived concentrate of human antibodies (IVIG). We manufacture Gamunex using a new purification process, which aims to assure product quality and supply reliability by eliminating viruses and other potential disease-causing agents. Biological Products has built a manufacturing facility exclusively dedicated to producing IVIG. Gamunex has been the subject of a large-scale clinical trial program for patients with certain forms of primary immune deficiency (PIP), congenital conditions in which the body's immune system is impaired, as well as idiopathic thrombocytopenic purpura (ITP), a condition in which the patient's own antibodies damage the cells that facilitate blood clotting. On the basis of these trials, we believe that Gamunex shows significantly improved effectiveness compared with earlier products used to treat these conditions.

Additional drug candidates in Phase II of clinical development are Repinotan, a Factor Xa inhibitor, a Raf Kinase inhibitor, and a novel Taxane. The respective indications are:

| <b>Product/ Brand name</b> | <b>Principal application</b> | <b>Status</b> |
|----------------------------|------------------------------|---------------|
| Repinotan                  | Acute ischemic stroke        | In Phase II   |
| Factor Xa inhibitor        | Thrombosis                   | In Phase II   |
| Raf Kinase inhibitor       | Cancer                       | In Phase II   |
| Novel Taxane               | Cancer                       | In Phase II   |

We plan to outlicense two projects in Phase II in the indications of chronic obstructive pulmonary disease and severe asthma. We have discontinued the development of Faropenem since the results of clinical trials indicated that it was unlikely that the product could be marketed successfully. Although Repinotan was ready for Phase III development, we revisited our clinical development strategy based on recent experiences in the stroke field and advice from key clinical experts, resulting in a revised study program for Phase II.

In May 2002 we entered into an agreement with Medicines for Malaria Venture (MMV), a World Health Organization (WHO) initiative, concerning the development of a new malaria drug based on the active substance artemisone. Under the agreement we will assume responsibility for the development of the drug, and after approval, WHO/MMV will oversee the distribution of the product in the public health systems of developing countries.

**CONSUMER CARE, DIAGNOSTICS****Overview**

Our Consumer Care, Diagnostics segment is comprised of the Consumer Care and the Diagnostics business groups.

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

|  | <u>2002</u>         | <u>2001</u> | <u>2000</u> |
|--|---------------------|-------------|-------------|
|  | (euros in millions) |             |             |
| External net sales   | 3,755               | 4,104       | 3,888       |
| Percentage of total sales (continuing operations)            | 13.0                | 14.1        | 13.4        |
| Intersegment sales   | 2                   | 2           |             |
| Operating result before exceptional items                    | 408                 | 388         | 311         |
| Percentage of total operating result (continuing operations) | 41.3                | 21.1        | 9.5         |
| Exceptional items  | 193                 | (47)        | (134)       |
| Operating result   | 601                 | 341         | 177         |

**Segment Strategy**

We are in the process of bundling our health care businesses (including Consumer Care, Diagnostics) into a single new, wholly-owned subsidiary of Bayer AG. See *Business*.

Our strategic priorities for the Consumer Care, Diagnostics segment are improving profitability, especially in the Diagnostics business, and gaining market share with selected core brands.

**Consumer Care***Overview*

Our Consumer Care business group develops and markets over-the-counter (OTC) medications (analgesics, cough and cold, dermatological and gastrointestinal remedies), as well as vitamin and nutritional supplements. It is our goal to achieve cost savings in the medium term by consolidating production. We have divested the household insecticide product lines in accordance with our strategy to focus on over-the-counter (OTC) medications, vitamins and nutritional supplements.

**Major Products***Analgesics*

The analgesics market comprises pain relief products both in oral form (for example, pills and tablets) and for topical use (for example, ointments and salves). We concentrate primarily on the oral products segment. Our OTC products also face competition from prescription drugs, for example cyclooxygenase (COX-II) inhibitor pain relievers.

*Aspirin®* (Bayer® 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.

*Aleve®* is a nonprescription strength of the analgesic naproxen sodium. Aleve is a long-lasting pain reliever and can be used for fever reduction.

Our *Midol®* product family, which competes in the menstrual pain relief category, comprises several specific product positions, for example, Maximum Strength Menstrual Formula, Teen Formula, PMS and Cramp Pain. We sell Midol products only in the United States and Canada.

*Cough/Cold*

Within the total cough and cold market, we concentrate on the cold/flu remedy segment. This OTC category faces threats from non-medicinal remedies (for example, nutritional or herbal products such as zinc supplements and echinacea), as well as from preventive

medicines available by prescription or under development.

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*Alka-Seltzer Plus*® is an effervescent product to relieve symptoms accompanying the common cold. We market Alka-Seltzer Plus in the United States and Canada. *Tabcin*® is a line of products similar to Alka-Seltzer Plus; we market it primarily in Latin America. 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 completed our launch of reformulated products with Alka-Seltzer Plus in the United States in 2001 and outside the United States in 2002.

*Aleve*® *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. Within this market, we focus on the antifungal category, which in turn consists of three sub-segments: gynecological, dermatological and general topical/ other antifungals. All topical dermatologicals face significant threats from the prescription drug area as well as from locally marketed generic products and low-price brands.

*Canesten*® is treatment for vaginal yeast infections, athlete's foot and other dermatological problems. Originally introduced in 1973 as a prescription drug, Canesten has been switching to OTC status on a country-by-country basis since 1990.

*Mycelex*® is a treatment for vaginal yeast infections. Mycelex was previously available only with a prescription; it became an OTC medication in 1992.

*Rid*® is a topical head lice treatment. We acquired this brand from Pfizer (Warner-Lambert) in 2000.

### *Gastrointestinals*

The gastrointestinal (GI) category includes antacids, anti-gas products, digestives, laxatives and anti-diarrheals. Our primary focus within this category includes all non-prescription segments except laxatives and anti-diarrheals. 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 (for example, anti-diarrheal brands extending or re-positioning to cover the antacid segment) and possible future preventative or curative therapies (for example, products that eradicate or manage the ulcer-causing bacterium *H. pylori*).

*Alka-Seltzer*® was developed in the late 1920s by Miles Laboratories 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*® 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*® 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. Applicable regulations vary greatly, both from country to country and across nutritional segments (for example, herbals vs. vitamins). As a general rule, however, regulation of nutritionals tends to be less stringent than that of other OTC products. Bayer's primary interests in the nutritionals field are in the vitamin and mineral (especially multi-vitamins/ minerals) and herbals segments.

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*One-A-Day*® multivitamins entered the marketplace in 1940. Since 1994 we have offered a variety of special formulations, such as Men's, Women's, 55 Plus, Maximum and Essential formulas. In 1998 One-A-Day introduced a line of multivitamin/ herbals blends to target specific health concerns (for example, Energy, Memory and Prostate).

*Flintstones*® are multivitamin dietary supplements containing (depending on type) 10-19 essential nutrients for children ages 2-12. They were introduced nationally in the United States in 1969. *Bugs Bunny*® children's sugar-free multivitamins were introduced in 1971 in the United States. To strengthen our position in the children's vitamin market, we launched *Scooby Doo*® children's vitamins in the United States in 2001.

**Markets and Distribution**

Our Consumer Care business group now focuses on the OTC market for 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.

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

|                                   | 2002                | 2001         | 2000         |
|-----------------------------------|---------------------|--------------|--------------|
|                                   | (euros in millions) |              |              |
| Europe                            | 452                 | 467          | 465          |
| North America                     | 680                 | 894          | 749          |
| Asia/Pacific                      | 188                 | 222          | 207          |
| Latin America/ Africa/Middle East | 396                 | 512          | 502          |
| <b>Total</b>                      | <b>1,716</b>        | <b>2,095</b> | <b>1,923</b> |

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

|                   | 2002                | 2001         | 2000         |
|-------------------|---------------------|--------------|--------------|
|                   | (euros in millions) |              |              |
| Analgesics        | 621                 | 775          | 731          |
| Cough/Cold        | 120                 | 177          | 110          |
| Dermatologicals   | 218                 | 246          | 225          |
| Gastrointestinals | 209                 | 266          | 239          |
| Nutritionals      | 174                 | 197          | 179          |
| Other             | 374                 | 434          | 439          |
| <b>Total</b>      | <b>1,716</b>        | <b>2,095</b> | <b>1,923</b> |

The business group is not generally subject to seasonality. Although consumer purchases of OTC cough/cold medications may vary at different times of the year, these variations do not have a material impact on the results of the segment as a whole.

Consumer Care procures many high-volume raw materials internally from other Bayer business groups and companies. Our major externally procured high-volume raw materials are sodium citrate, sodium bicarbonate, citric acid and ascorbic acid. These are readily available 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 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 supermarket chains and other mass marketers. In Europe, however, pharmacies are the usual distribution channel.



We regard Johnson & Johnson, GlaxoSmithKline, Wyeth and Pfizer as our major competitors in the Consumer Care business.

**Table of Contents****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

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, Germany. The Leverkusen-based activities are currently being relocated to Morristown.

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 during 2003. These products are:

| Product/ Brand name  | Principal application   | Status                                      |
|----------------------|-------------------------|---|
| ASA & Pseudoephedrin | Congestion, pain relief | Registration approved, launch expected 2003 |
| Fluconazol           | Vaginal Mycosis         | Registration approved, launch expected 2003 |
| ASP Fast Dissolve    | Cough & Cold            | Launch expected 2003                        |
| Bayer Muscle & Joint | Topical pain            | Launch expected 2003                        |
| PhillipsChews        | GI                      | Launch expected 2003                        |
| RID Pure             | Lice treatment          | Launch expected 2003                        |

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

**Diagnostics****Overview**

With approximately 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.

Diagnostics acquired Visible Genetics (VGI) in the fourth quarter of 2002, which expands Bayer's position in the Nucleic Acid Diagnostics segment of the Central Laboratory Market. VGI introduced the first FDA-approved product for HIV resistance testing and provides additional expertise in HIV and HCV testing. The VGI acquisition serves the strategic goal to serve the market with an expanded infectious disease portfolio. We also signed a joint venture agreement with Matsushita Electric Industrial Co. to establish Viterion TeleHealthcare LLC, a company intended to market products and services for the telemedicine sector. The company was established in January 2003.

**Major Products****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. ADVIA products include medium- and high-throughput systems for immunoassay diagnostics (the measurement of such substances as proteins, steroids, drugs and antibodies in patients' blood), clinical chemistry and hematology analysis and other diagnostic disciplines. The main systems include ADVIA Centaur®, ADVIA 1650® and ADVIA 120®.



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In addition to our ADVIA products, we also offer the *ACS:180*® and *Bayer Immuno 1*® immunodiagnostic analyzers, as well as the *Clinitek Atlas*® 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*® brand for the testing of HIV and Hepatitis B and C. NAD techniques detect nucleic acids such as DNA and RNA to allow for effective treatment of infectious and other diseases.

*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*® family of instruments and reagents for the measurement of blood gases, electrolytes and coagulation.

In the field of urinalysis, we offer the *Multistix*® family of reagent strips for visual reading of up to 10 parameters and the *Clinitek*® line of instruments for automated readings. We also offer the *DCA 2000+*® analyzer for use in physicians' offices to complement our diabetes self-testing products. The *DCA 2000+* allows doctors to rapidly assess the effectiveness of diabetic patients' self-monitoring over a period of time.

*Self-Testing*

In the self-testing segment we launched the *Ascensia*® brand for our diabetes testing products. Our key products include the *Ascensia Dex/Esprit*® blood glucose meter, which incorporates a 10-test cartridge to provide greater convenience to patients who test their blood sugar levels several times per day, and our best-selling diagnostics product, the *Ascensia Elite*®, a versatile blood glucose meter 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:

|                                   | <b>2002</b>         | <b>2001</b>  | <b>2000</b>  |
|-----------------------------------|---------------------|--------------|--------------|
|                                   | (euros in millions) |              |              |
| Europe                            | 742                 | 697          | 700          |
| North America                     | 901                 | 880          | 868          |
| Asia/Pacific                      | 268                 | 276          | 307          |
| Latin America/ Africa/Middle East | 128                 | 156          | 90           |
| <b>Total</b>                      | <b>2,039</b>        | <b>2,009</b> | <b>1,965</b> |

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

|                                | <b>2002</b>         | <b>2001</b> | <b>2000</b> |
|--------------------------------|---------------------|-------------|-------------|
|                                | (euros in millions) |             |             |
| Laboratory testing (excl. NAD) | 813                 | 791         | 776         |
| NAD testing                    | 99                  | 86          | 65          |
| Near patient testing           | 398                 | 407         | 419         |
| Self-testing                   | 729                 | 722         | 705         |
| Other                          |                     | 3           |             |

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|       |       |       |       |
|-------|-------|-------|-------|
| Total | 2,039 | 2,009 | 1,965 |
|-------|-------|-------|-------|

Diagnostics sales are typically lower in the first quarter, but show a slightly stronger performance in the fourth quarter.

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We manufacture or assemble a significant portion of our own products. To do so, we rely on a supplier management process to supply raw materials, sub-assemblies and finished goods on an OEM (original equipment manufacturer) basis. Most of our direct materials are readily available commodities. Typically, these materials are not subject to significant changes in price or availability.

Some direct or OEM materials that we require would pose a substantial risk to the business if they were to become unavailable. In these instances, strategic reserves of selected direct materials or finished products help to ensure that our customers have a continuous and reliable supply. We maintain a global supplier base with contracts in place where appropriate. Our supplier management process includes procedures for continuous supplier monitoring and evaluation, as well as new supplier analysis and qualification.

We market our laboratory testing and NAD products, as well as most of our near patient testing products, directly to customers, who are primarily reference or private 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.

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 on 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 oncology, cardiovascular and infectious disease testing.

In NAD testing, through menu expansion of assays for infectious disease and oncology testing.

In near patient testing, through enhancements of our Rapid systems, a new hospital point-of-care platform, and new chemistry strips for urinalysis.

In self-testing, through internal development and in-sourcing of mass market, user-friendly whole blood glucose monitoring systems and by focusing research in minimally- and non-invasive technologies.

The division's primary research and development facilities are located in the United States: in Medfield and Cambridge, Massachusetts; Tarrytown, New York; Elkhart, Indiana; and Berkeley, California.

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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:

| Product/Brand name                   | Principal application  | Status                                 |
|--------------------------------------|--|--|
| 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® menu extension        | Extension of immunoassay menu, including full ID panel   | Launches planned for 2003 through 2004 |
| VERSANT HIV 3.0                      | Quantitative detection of HIV  | Launched in November 2002              |
| VERSANT HCV 3.0                      | Quantitative detection of hepatitis C  | Launched in May 2003                   |
| RapidLab 1200                        | Blood gas/electrolyte analyzer   | Launch planned for 2004                |
| Multistix PRO                        | Addition of proprietary microalbumin and creatine reagent pads for improved screening for kidney dysfunction       | Launched in January 2002               |
| Ascensia® Contour®                   | Next generation whole blood glucose monitoring single strip system   | Launched in April 2003                 |

**ANIMAL HEALTH****Overview**

Our Animal Health segment researches, develops and markets new products for the health care of animals. These products are divided between the two business units Livestock and Companion Animal. The main activities of the Animal Health business group are the development of therapies for infectious diseases caused by bacteria, virus and parasites, and the development of pharmacologicals. This range of products is supplemented by a line of cosmetic care products as well as farm hygiene products.

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

|  | 2002                | 2001 | 2000 |
|--|---------------------|------|------|
|  | (euros in millions) |      |      |
| External net sales   | 850                 | 858  | 873  |
| Percentage of total sales (continuing operations)            | 2.9                 | 2.9  | 3.0  |
| Intersegment sales   | 1                   | 4    | 6    |
| Operating result before exceptional items                    | 180                 | 161  | 148  |
| Percentage of total operating result (continuing operations) | 18.2                | 8.8  | 4.5  |
| Exceptional items  | (11)                | 0    | 25   |
| Operating result   | 169                 | 161  | 173  |

**Segment Strategy**

We are in the process of bundling our health care businesses (including Animal Health) into a single new, wholly-owned subsidiary of Bayer AG. See *Business*.

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Animal Health collaborates closely with our Pharmaceuticals business group and CropScience segment as well as other life science companies in research and development in order to bring to the market new active ingredients and products that combat diseases in animals.

### **Major Products**

The imidacloprid combinations *Advantage*® and *Advantix*® as well as *Baytril*® are the two most important product types in our Animal Health business.

#### *Parasiticides*

*Advantix*® is a flea and tick control product in an easy-to-use spot-on application form with additional repelling effect against ticks and mosquitoes.

*Advantage*® is a flea control product in an easy-to-use, spot-on application form.

The *Droncir*® and *Drontal*® product family offers solutions for the control of tapeworm and roundworm.

*Bayticol*® is a topical product against major tick species that attack livestock animals.

*Baycox*® is a product for controlling coccidiosis, primarily in poultry and, more recently, in piglets.

#### *Antimicrobials*

The *Baytril*® family is our line of fluoroquinolone antimicrobials for the treatment of severe bacterial infections in animals.

#### *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 Bayovac IBR Marker vaccines, used in controlling bovine respiratory disease, make it possible to distinguish vaccinated from infected animals.

#### *Farm Hygiene*

Integrated into our livestock business is our biosecurity management process that includes Farm Hygiene products. These products include insecticides for fly control, rodenticides against rats and mice (which now belong to CropScience but are also marketed by Animal Health) and disinfectants against bacteria.

#### *Nutritionals*

These highly generic and homogenous commodities are essential for higher value proprietary products like Baytril and Baycox to participate in the Asian market.

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

The Animal Health business covers worldwide markets, including emerging markets such as China, Vietnam and others in South-East Asia. We divide our marketing activities into two main segments, marketing for food-producing animals and marketing for companion animals including horses.



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The two segments' combined sales by region and totals for the past three years are as follows:

|                                   | <b>2002</b>         | <b>2001</b> | <b>2000</b> |
|-----------------------------------|---------------------|-------------|-------------|
|                                   | (euros in millions) |             |             |
| Europe                            | 243                 | 237         | 228         |
| North America                     | 337                 | 340         | 339         |
| Asia/Pacific                      | 136                 | 134         | 150         |
| Latin America/ Africa/Middle East | 134                 | 147         | 156         |
| <b>Total</b>                      | <b>850</b>          | <b>858</b>  | <b>873</b>  |

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

|                | <b>2002</b>         | <b>2001</b> | <b>2000</b> |
|----------------|---------------------|-------------|-------------|
|                | (euros in millions) |             |             |
| Parasiticides  | 448                 | 455         | 443         |
| Antimicrobials | 205                 | 208         | 191         |
| Biologicals    | 39                  | 45          | 81          |
| Nutritionals   | 63                  | 69          | 78          |
| Others         | 95                  | 81          | 80          |
| <b>Total</b>   | <b>850</b>          | <b>858</b>  | <b>873</b>  |

On a worldwide basis, the activities of the Animal Health segment are not subject to any significant seasonal effects. 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.

Our main competitors in the animal health business are Merial, Pfizer Animal Health and Intervet.

**Research and Development**

The Animal Health segment focuses its research and development activities on antimicrobials, parasiticides and pharmacologicals. A particular goal of our research and development efforts is to provide the segment with innovative and 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 currently have several products or product families in late stages of development. Subject to regulatory approval, we expect to launch these products between 2003 and 2006. These products are:

| <b>Projects</b>                                    | <b>Indication</b> | <b>Status</b>          |
|--|-------------------|------------------------|
| Endoparasiticide and ectoparasiticide combinations |                   | launch/in registration |

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|                               |  |                         |
|-------------------------------|--|-------------------------|
|                               | Control of fleas, ticks, heartworm and gastrointestinal worms in cats and dogs |                         |
| Red mite control remedy       | Poultry  | in clinical development |
| Pain remedy                   | Pain therapy in dogs and cats  | in clinical development |
| Baycox calves                 | Coccidiosis control in calves  | in clinical development |
| Baytril swine (North America) | Antimicrobial infections in pigs   | in registration         |
| Pradofloxacin                 | Antimicrobial for dogs and cats  | in clinical development |

**Table of Contents****CROPSCIENCE****Overview**

Our CropScience segment develops and markets chemical crop protection products, seeds and integrated biotechnology solutions for agricultural and non-agricultural uses. CropScience operates through three business groups: Crop Protection, Environmental Science and BioScience. Crop Protection develops and markets chemical crop protection products for the control of insects, weeds and fungi. It develops active ingredients for new modes of action for enhanced effectiveness against these target pests. Environmental Science markets pest-control products for non-agricultural uses. The business group's portfolio includes products for lawn and garden care, termite and vector control, and rural hygiene and household care. BioScience focuses on the research, development and commercialization of conventional seeds and biotechnology products. The following table shows CropScience's performance for the last three years.

|  | <u>2002</u>         | <u>2001</u> | <u>2000</u> |
|--|---------------------|-------------|-------------|
|  | (euros in millions) |             |             |
| External net sales   | 4,697               | 2,838       | 2,582       |
| Percentage of total sales (continuing operations)            | 16.2                | 9.7         | 8.9         |
| Intersegment sales   | 90                  | 102         | 97          |
| Operating result before exceptional items                    | (15)                | 464         | 410         |
| Percentage of total operating result (continuing operations) |                     | 25.2        | 12.5        |
| Exceptional items  | (107)               | 0           | 1           |
| Operating result   | (122)               | 464         | 411         |

The following table shows the sales during the past three years from the product that we regard as material to the sales of CropScience as a whole.

| Product   | <u>2002</u>                     |                                   | <u>2001</u>                     |                                   | <u>2000</u>                     |                                   |
|---|---------------------------------|-----------------------------------|---------------------------------|-----------------------------------|---------------------------------|-----------------------------------|
|   | Sales<br>(euros in<br>millions) | Percentage<br>of segment<br>sales | Sales<br>(euros in<br>millions) | Percentage<br>of segment<br>sales | Sales<br>(euros in<br>millions) | Percentage<br>of segment<br>sales |
| Imidacloprid (Confidor, Gaucho, Admire, Provado)* | 561                             | 11.9                              | 608                             | 21.4                              | 560                             | 21.7                              |

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

**Segment Strategy**

In 2002 we reorganized our former Crop Protection segment in connection with the acquisition of Aventis CropScience. In the short term, the completion of the integration and divestiture processes is a high priority. In nearly all countries, we have merged the activities of the two companies, and we have initiated important integration projects to achieve our synergy targets. In addition, we have substantially completed the divestitures required in connection with antitrust approvals for the acquisition. See *Notes to the Consolidated Financial Statements of the Bayer Group Acquisitions/ Divestitures*.

CropScience aims to increase profitability by introducing new products, realizing our synergy targets, controlling costs and streamlining its portfolio. From time to time, CropScience may seek to optimize its portfolio through strategic joint ventures and acquisitions.

In Crop Protection, the strategic focus is to capitalize on our strong product portfolio and introduce the new products in the pipeline.

Environmental Science is among the leading suppliers for non-agricultural pest control products worldwide, based on total sales. The group's objective is to maintain this leading market position. Strategic cornerstones will be selective partnerships for the lawn and garden business in the United States and the continuous optimization of our portfolio.



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With the acquisition of Aventis CropScience, CropScience has gained access to the field of biotechnology. CropScience continues to analyze its opportunities in the market for agronomic trait technologies, which are traits that a crop exhibits while it is still on the farm, such as insect resistance or herbicide resistance. CropScience is also further exploring the opportunities in the emerging field of quality traits, which are post-farm traits, such as fiber quality or nutritional value. Additionally, Nunza, a leading international developer and supplier of high quality conventional vegetable seed varieties, is an important pillar of our BioScience business.

**Major Products*****Crop Protection******Insecticides***

Imidacloprid is an active ingredient in the chemical class of neonicotinoids. It 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. Key brands containing Imidacloprid are *Confidor*®, *Admire*® and *Provado*®. Imidacloprid is now marketed in more than 120 countries for use on numerous important crops.

Aldicarb (*Temik*®) is a broad-spectrum carbamate insecticide and nematicide in granular form. Temik is applied to soil to protect crop roots from insects and nematodes and to protect against pests such as aphids or mites. Temik is used on a large number of crops like cotton, citrus and potatoes.

Deltamethrin (*Decis*®) is a broad-spectrum pyrethroid insecticide. Although used primarily against biting insects, it is also effective against various sucking pests. Decis is marketed in more than 100 countries for use on a wide range of crops (including cotton, soybeans, vegetables and cereals).

***Fungicides***

Tebuconazole prevents the targeted fungus from synthesizing vital components of its cell membrane. It can be used as a spray (*Folicur*® and related product brands) 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 certain crops.

Trifloxystrobin is a strobilurin-type broad-spectrum fungicide used primarily to protect cereals and a variety of other crops. It is used in foliar sprays as a straight product under our lead brand *Flint*® and in numerous combinations such as *Stratego*® and *Sphere*®.

Fosetyl Aluminum is a fungicide with specific activity against downy mildew fungi in vines, fruits and vegetables. A key property of Fosetyl Aluminum is its upward and downward mobility in plants. Sprayed on leaves, it is either absorbed and transported inside the plants downward to the roots to protect them against attack from fungi in the soil, or it is re-directed inside the plants upward to protect newly emerging leaves as well. It is used in foliar sprays and soil drenches as a straight product under our lead brand *Aliette*® and in various combinations under brands like *Mikal*® or *Valiant*®.

***Herbicides***

Fenoxaprop-P-ethyl (*Puma*®), CropScience's best selling herbicide, is used in more than 73 countries and is one of the leading products used worldwide against grass weeds in cereals, rice, soybeans and canola.

Metribuzin (*Sencor*®) is used against broadleaf weeds and grasses. The product is applied on potatoes, soybeans, sugar cane, tomatoes and other crops. Despite Metribuzin's maturity, its lifecycle has been extended by using the product as a mix partner with other key herbicides.

*Flufenacet*®, introduced in 1998, is effective in low dosages to protect numerous crops, including corn, soybeans, potatoes, cereals and rice, against grass weeds. *Axiom*®, *Define*, *Domain*®, *Epic*® and *Terano*® are key Flufenacet brands.

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Glufosinate-Ammonium (*Basta*®) is a post-emergence herbicide with a broad spectrum of efficacy against annual and perennial weeds and grasses. It is primarily used on perennial tree crops, vegetables, non-crop areas and as a harvest aid. *Liberty*®, introduced in 1998 in the United States and Canada, refers to the registered trade name of Glufosinate-Ammonium applied on herbicide tolerant crops.

The active ingredients Phenmedipham, Desmedipham and Ethofumesate make up the *Betanal*® product family, the basis of weed control systems in various beet varieties. Constant product innovation improving efficacy and product use have extended the life cycle of the product family, resulting in its strong position in the sugar beet market.

### *Seed Treatment*

The insecticidal active ingredient Imidacloprid (*Gaucho*®) is CropScience's best selling seed treatment product. It is registered in over 100 countries for the treatment of early season pests and soil and leaf pests in key crops such as sugarbeet, corn, cereals and cotton.

Tebuconazole (*Raxil*®) is registered in our most important markets worldwide as a seed treatment to control seed and soilborne diseases in cereals.

### ***Environmental Science***

Environmental Science markets its products to different end customers, particularly targeting pest management professionals, homeowners and do-it-yourself gardeners.

Imidacloprid-based *Premise*® is a termite control product launched in the United States in 1996. *Merit*®, another imidacloprid-based compound, is used in the green industry segment, in particular in turf and ornamentals. It controls a large spectrum of insects such as grubs and cutworms.

Deltamethrin (*K-Othrine*®, *Deltagard*®), another important insecticide used in Environmental Science, controls a large spectrum of flying and crawling insects. Deltamethrin is recommended by the World Health Organization and has been used for many years to control insect-borne diseases such as malaria.

*Maxforce*® is an insecticide used in passive treatment applications such as gels and baits. It contains Hydramethylnone or Fipronil. Maxforce's range of products includes a large number of insecticides controlling crawling insects.

The products targeted at the non-professional users are marketed under the umbrella brands *Bayer Advanced*® in the United States and *Bayer Garden*® in Europe.

### ***BioScience***

Nunza is a leading international developer and supplier of high quality vegetable seed varieties that are marketed to professional outdoor and greenhouse growers, plant raisers and the food processing and service industries. The main crop seeds are carrots, onions, melons, leeks and tomatoes. The commercial name in Asia/Pacific and Europe is *Nunhems*® and *Sunseeds*® in the Americas.

*LibertyLink*® corn, provided by licensee seed companies in North America, provides farmers with the ability to utilize Liberty® brand herbicide (Glufosinate-Ammonium) in a post emergent weed control program for corn.

*FiberMax*® cottonseed brand was launched in the U.S. market in 1998. Additionally it was introduced in Greece, Spain, Turkey and some Latin American countries.

*InVigor*® hybrid canola (oilseed rape) varieties are suitable in several climate and soil conditions for a variety of agricultural practices. InVigor hybrid canola is a high yielding variety and affords agricultural management options that require less cultivation techniques. These hybrid varieties also have tolerance to Glufosinate-Ammonium.

**Table of Contents****Markets and Distribution**

Europe has traditionally been CropScience's strongest crop protection market, accounting for 39 percent of our sales in 2002.

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

|                                   | <u>2002</u>         | <u>2001</u>  | <u>2000</u>  |
|-----------------------------------|---------------------|--------------|--------------|
|                                   | (euros in millions) |              |              |
| Europe                            | 1,851               | 1,063        | 925          |
| North America                     | 1,024               | 636          | 574          |
| Asia/Pacific                      | 797                 | 558          | 555          |
| Latin America/ Africa/Middle East | 1,025               | 581          | 528          |
|                                   | <u>4,697</u>        | <u>2,838</u> | <u>2,582</u> |
| <b>Total</b>                      | <b>4,697</b>        | <b>2,838</b> | <b>2,582</b> |

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

|                       | <u>2002</u>         | <u>2001</u>  | <u>2000</u>  |
|-----------------------|---------------------|--------------|--------------|
|                       | (euros in millions) |              |              |
| Insecticides          | 1,250               | 1,059        | 1,026        |
| Fungicides            | 1,030               | 821          | 722          |
| Herbicides            | 1,452               | 538          | 451          |
| Seed Treatment        | 270                 |              |              |
|                       | <u>4,002</u>        | <u>2,418</u> | <u>2,199</u> |
| Total Crop Protection | 4,002               | 2,418        | 2,199        |
| Environmental Science | 605                 | 420          | 383          |
| BioScience            | 90                  |              |              |
|                       | <u>4,697</u>        | <u>2,838</u> | <u>2,582</u> |
| <b>Total</b>          | <b>4,697</b>        | <b>2,838</b> | <b>2,582</b> |

Because nearly 80 percent of CropScience's business is realized in the northern hemisphere, the business is affected by the seasonality of the various crop cycles.

CropScience obtains a significant part of its raw materials from within the Bayer group but also enters into contractual agreements with non-Bayer companies.

CropScience markets its Crop Protection products through a two or three-step distribution system, depending on local market conditions. Under this system, products are sold either to wholesalers or directly to retailers.

Environmental Science products are marketed either through specialized distribution channels or agricultural distribution channels depending on the target segments.

BioScience markets its seeds to end users, distributors and processing industries. Biotechnology traits are mainly distributed through out-licensing to seed companies, which produce commercial seeds on the licensor's behalf. In some cases, traits are provided to other bioscience companies that utilize the technology in their own research and products.

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Our main competitors in the Crop Protection business are Syngenta, Monsanto, BASF, Dow AgroSciences and DuPont. Dow AgroSciences and Syngenta are our main competitors in the overall Environmental Science business. In the business of biotechnology-based products and seeds, DuPont, Monsanto and Syngenta are the market leaders.



**Table of Contents*****Research and Development****Crop Protection*

Bayer CropScience Research and Development is globally represented with main facilities in Monheim (headquarters) and Frankfurt, Germany; Lyon and Sophia Antipolis, France; Kansas City, Missouri and Raleigh, North-Carolina; and Yuki City, Japan.

The responsibility of Research and Development is to discover and develop customer-focused, innovative and profitable solutions in crop protection.

Research covers all activities to identify new active ingredients that can be developed as insecticides, fungicides or herbicides. Genomics, high throughput screening and combinatorial chemistry are part of the technological platform for finding new lead structures.

Collaborations with research companies supplement our internal research activities (for example target identification carried out by GenOptera LLC, a joint venture between Bayer and Exelixis, Inc.).

Once a compound is identified for development, its biological, environmental and toxicological profile, as well as its economic potential, are assessed. Suitable candidates are launched in the market.

CropScience actively supports its products through continuous life cycle management. This includes the development of new formulations for existing active ingredients and expanding their applicability to additional crops and countries.

*Environmental Science*

The molecules invented by Crop Protection Research are tested and evaluated in Environmental Science for potential development. Development projects include passive treatments (gels, baits) and innovative formulations to control insects, as well as new herbicide products and new mixtures of fungicides for the turf and ornamental market segments.

*BioScience*

The BioScience research and discovery facilities are located in Lyon, France; Haelen, Netherlands; Ghent, Belgium and Potsdam, Germany.

Agricultural biotechnological research and development is predominantly directed toward crop protection and yield enhancement, reproductive biology (hybrids), stress tolerance and carbohydrate modification. The technologies include all relevant tools to improve key crops (for example corn, cotton, rice) for growers and industrial partners, from identifying the gene of interest to development. We pursue cooperative arrangements to leverage our portfolio and plant transformation technologies over a larger genetic pool (germ plasm). Research activities range from the discovery of additional agronomic traits to the discovery of new quality traits to enhance crops for the food, feed and industrial applications markets.

The following new active ingredients were launched in 2002 or are expected to be launched in 2003:

| <b>New active ingredients</b> | <b>Product Family</b> | <b>Status</b>           |
|-------------------------------|-----------------------|-------------------------|
| Methoxyfenozide(1)            | Insecticides          | Launched in 2002        |
| Mesosulfuron                  | Herbicides            | Launched in 2002        |
| Foramsulfuron                 | Herbicides            | Launched in 2002        |
| Spirodiclofen                 | Insecticides          | Launch expected in 2003 |
| Clothianidin(2)               | Insecticides          | Launch expected in 2003 |

(1) Co-development with Dow AgroScience

(2) Co-development with Sumitomo Chemical Takeda Agro Ltd.

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**Table of Contents****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>2002</u>         | <u>2001</u> | <u>2000</u> |
|--|---------------------|-------------|-------------|
|  | (euros in millions) |             |             |
| External net sales   | 5,378               | 5,581       | 5,816       |
| Percentage of total sales (continuing operations)            | 18.6                | 19.1        | 20.0        |
| Intersegment sales   | 115                 | 116         | 122         |
| Operating result before exceptional items                    | 175                 | 288         | 560         |
| Percentage of total operating result (continuing operations) | 17.7                | 15.7        | 17.1        |
| Exceptional items  | (102)               | (50)        | (45)        |
| Operating result   | 73                  | 238         | 515         |

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

**Segment Strategy**

We plan to hold our Plastics, Rubber segment and our Polyurethanes, Coatings, Fibers segment through a single new wholly-owned subsidiary of Bayer AG that will be responsible for all of Bayer's Polymers businesses. See *Business*.

Our goal is to continue our leading market position in high-value added plastic and rubber products. We intend to continue developing new applications for our products. We aim to improve profit margins by continually streamlining our existing product portfolio, implementing efficient cost structures, eliminating capacity constraints and further exploiting our regional growth potential. We intend to boost our returns through stringent cost and efficiency programs. As part of these programs, we have announced that we plan to reduce the headcount in the Plastics, Rubber segment and the Polyurethanes, Coatings, Fibers segment.

**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 very low or very high operating temperatures as well as corrosive chemicals and solvents.

**Major Products***Amorphous thermoplastics**Polycarbonates*

Polycarbonates are plastics that are transparent and highly stable across a wide temperature range. 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. *Makrolon®* 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®* range.

*Styrenics*

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*®, and *Lustran*®, acrylonitrile/

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butadiene/styrene (ABS) copolymers, are our leading styrenics. Other styrenics include *Lustran SAN®*, *Bayblend®* (Polycarbonate/ABS blend), *Triax®* and *Centrex®*.

*Fabricated Products*

We also produce plastic films as well as solid and multiwall sheets and sheeting with a broad range of characteristics for a wide variety of applications. These materials consist of polycarbonate, polycarbonate blends or polyester PET-G. We market our films under the trade names *Makrofol®* and *Bayfol®*, and our sheeting as *Makrolon®* and *Vivak®*.

*Semi-crystalline polymers**Polyamides*

Polyamides are tough, strong, high-performance plastics. They are resistant to chemicals and can often replace metal and other materials. 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 anti-lock braking systems. *Durethan®* is our range of engineering thermoplastics based on PA 6, PA 66 and their copolyamides.

*Polyesters*

Semicrystalline thermoplastic polyesters like polybutylene terephthalate (PBT) and engineering plastics polyethylene terephthalate show high resistance to chemicals, heat distortion, stress cracking and low water absorption. They are used unreinforced, glass fiber reinforced, flame retardant, filled and in blends. *Pocan®* is our trademark for engineering thermoplastics based on PBT and PET.

*Thermoplastic polyurethanes*

Thermoplastic polyurethanes, or TPUs, belong to the high-performance thermoplastic elastomers family. A key TPU property is high abrasion- and wear-resistance. 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. We market our thermoplastic polyurethanes under the trademarks *Desmopan®* in Germany and other EU countries and *Texin®* 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.

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

|                                   | 2002                | 2001         | 2000         |
|-----------------------------------|---------------------|--------------|--------------|
|                                   | (euros in millions) |              |              |
| Europe                            | 1,502               | 1,572        | 1,574        |
| North America                     | 824                 | 846          | 994          |
| Asia/Pacific                      | 736                 | 735          | 730          |
| Latin America/ Africa/Middle East | 175                 | 221          | 222          |
| <b>Total</b>                      | <b>3,237</b>        | <b>3,374</b> | <b>3,520</b> |



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

|  | 2002                | 2001         | 2000         |
|--|---------------------|--------------|--------------|
|  | (euros in millions) |              |              |
| Amorphous polymers (polycarbonates, styrenics and structural fabricates)           | 2,709               | 2,767        | 2,918        |
| Semi-crystalline polymers (polyamides, polyesters and thermoplastic polyurethanes) | 528                 | 607          | 602          |
| <b>Total</b>   | <b>3,237</b>        | <b>3,374</b> | <b>3,520</b> |

The market for engineering thermoplastics is characterized by constant pressure on margins and growing price competition due to globalization, consolidation and increasing customer purchasing power. The primary driver of competition is price. Our major customers also 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.

Despite continually growing demand, overcapacity remains a global problem. Although several producers have cancelled or postponed expansion plans, capacity continues to increase. We expect that the industry will continue to consolidate and that new, low-cost technologies will replace small, 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 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 third-party raw materials under long-term, as-if-producer contracts that establish cost-based pricing formulas, limiting 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 also use e-commerce as a platform for marketing and distribution and other business functions.

Our most significant global competitor in all regions is General Electric Plastics. 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 market players.

**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 polycarbonate melt manufacturing process, 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.

The business group's primary research and development facilities are located in Krefeld and Dormagen, Germany; Pittsburgh, Pennsylvania; Addyston, Ohio; and Moxi, India.

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We currently have six products in late stages of development. We expect to launch these products during 2003. These products are:

| <b>Product/ Brand name</b>        | <b>Application</b>                        | <b>Status</b>           |
|-----------------------------------|---|-------------------------|
| Makrolon sheet grade              | Sheets with transparent IR protection     | Start commercialization |
| Extension of Bayblend FR series   | Business machines/ information technology | Start commercialization |
| Triax for online painting         | Automotive exterior parts                 | Start commercialization |
| Structural hybrid components      | Automotive                                | Start commercialization |
| Halogenfree flame retardant Pocan | Electric/ Electronic                      | 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. On May 9, 2003, we sold our interest in PolymerLatex, a joint venture with Degussa AG, after receiving approval from the relevant antitrust authorities.

*Major Products**Solid Rubber*

We produce a wide range of synthetic rubber products. Our customers may process our rubber materials into end products, often blending them with other synthetic rubbers or natural rubber to form a wide range of compounds. Our products offer customers an array of varying characteristics, including processability, 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 are also the basis for a wide variety of other articles such as hoses, cable and wire sheathing, footwear and golf balls. In addition, some of our polymers are formulated as adhesives.

*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.

*Rhein Chemie*

Our subsidiary Rhein Chemie produces a wide variety of substances used in rubber manufacture and processing.

*Markets and Distribution*

The main markets for the Rubber business group are Europe and North America. The tire and automotive industries generate about 60 percent of the business group's revenue, both from new car production and replacement tires.



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

|                                   | <u>2002</u>         | <u>2001</u>  | <u>2000</u>  |
|-----------------------------------|---------------------|--------------|--------------|
|                                   | (euros in millions) |              |              |
| Europe                            | 1,008               | 1,060        | 1,033        |
| North America                     | 658                 | 720          | 762          |
| Asia/Pacific                      | 347                 | 307          | 367          |
| Latin America/ Africa/Middle East | 128                 | 120          | 134          |
|                                   | <u>2,141</u>        | <u>2,207</u> | <u>2,296</u> |

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

|                  | <u>2002</u>         | <u>2001</u>  | <u>2000</u>  |
|------------------|---------------------|--------------|--------------|
|                  | (euros in millions) |              |              |
| Solid Rubber     | 1,373               | 1,420        | 1,468        |
| Rubber Chemicals | 292                 | 288          | 314          |
| PolymerLatex     | 179                 | 190          | 184          |
| Rhein Chemie     | 280                 | 293          | 318          |
| Other            | 17                  | 16           | 12           |
|                  | <u>2,141</u>        | <u>2,207</u> | <u>2,296</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 Chemical and Nippon Zeon; and

*Rubber Chemicals:* Flexsys and Crompton.

**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, Canada.

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 in more demanding environments.

We currently have five products in late stages of development. We expect to launch these products during 2003. These products are:

| <u>Product/ Brand name</u> | <u>Application</u> | <u>Status</u> |
|----------------------------|--------------------|---------------|
|----------------------------|--------------------|---------------|

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|  |  |                                      |
|--|--|--------------------------------------|
| Therban PT                               | Injection moulding   | Production trials                    |
| Therban XT                               | Improved hot abrasion and adhesion                           | Market development                   |
| Polymer Gel<br>(Tradename to be decided) | Low density, polymer filler for tires and<br>technical goods | Sampling to customers                |
| Levapren 900                             | PVC substitute in NBR blends                                 | Sampling to customers                |
| Vulcuren                                 | Natural rubber/ truck tire                                   | Trial product, sampling to customers |

**Table of Contents****POLYURETHANES, COATINGS, FIBERS****Overview**

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

|  | <u>2002</u>         | <u>2001</u> | <u>2000</u> |
|--|---------------------|-------------|-------------|
|  | (euros in millions) |             |             |
| External net sales   | 5,397               | 5,439       | 5,582       |
| Percentage of total sales (continuing operations)            | 18.6                | 18.6        | 19.2        |
| Intersegment sales   | 78                  | 138         | 462         |
| Operating result before exceptional items                    | 243                 | 129         | 577         |
| Percentage of total operating result (continuing operations) | 24.6                | 7.0         | 17.7        |
| Exceptional items  | (448)               | (120)       | (53)        |
| Operating result   | (205)               | 9           | 524         |

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

**Segment Strategy**

We plan to hold our Polyurethanes, Coatings, Fibers segment and our Plastics, Rubber segment through a single new wholly-owned subsidiary of Bayer AG that will be responsible for all Bayer's Polymers businesses. See *Business*.

Our goal is to continue expanding our global position in polymers. In 2000 we supplemented our existing portfolio by acquiring Lyondell's polyol business. We now plan to focus on capacity expansion in Asia, where we see opportunities for above-average growth. We intend to boost our returns through stringent cost and efficiency programs. As part of these programs we have announced that we plan to reduce the headcount in the Polyurethanes, Coatings, Fibers segment and in the Plastics, Rubber segment.

**Polyurethanes****Overview**

Our Polyurethanes business group focuses on the development, production and marketing of isocyanates and Polyol materials for PUR 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 under such brand names as *Desmodur*®, *Desmophen*®, *Baydur*® and *Bayflex*®. The characteristics of a given polyurethane depend on both the material components 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, who then combines them at his 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 furniture, mattresses, automotive components, appliances, sport and leisure equipment and construction.



**Table of Contents****Markets and Distribution**

Europe and the NAFTA nations remain the primary markets for our Polyurethanes business group, although Asia is growing in importance.

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

|                                   | <u>2002</u>         | <u>2001</u>       | <u>2000</u>       |
|-----------------------------------|---------------------|-------------------|-------------------|
|                                   | (euros in millions) |                   |                   |
| Europe                            | 1,287               | 1,340             | 1,218             |
| North America                     | 1,143               | 1,237             | 1,175             |
| Asia/Pacific                      | 439                 | 416               | 394               |
| Latin America/ Africa/Middle East | 387                 | 200               | 343               |
|                                   | <u>          </u>   | <u>          </u> | <u>          </u> |
| Total                             | 3,256               | 3,193             | 3,130             |
|                                   | <u>          </u>   | <u>          </u> | <u>          </u> |

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

|            | <u>2002</u>         | <u>2001</u>       | <u>2000</u>       |
|------------|---------------------|-------------------|-------------------|
|            | (euros in millions) |                   |                   |
| TDI        | 593                 | 575               | 583               |
| MDI        | 1,099               | 1,177             | 980               |
| Polyethers | 1,347               | 953               | 1,226             |
| Others     | 217                 | 488               | 341               |
|            | <u>          </u>   | <u>          </u> | <u>          </u> |
| Total      | 3,256               | 3,193             | 3,130             |
|            | <u>          </u>   | <u>          </u> | <u>          </u> |

For our customers' applications, there are no significant man-made or natural substitute materials for flexible polyurethane foams. Polystyrenes can compete with rigid polyurethane foams if the required materials are in sheet or block form. Conversely, polyurethane elastomers compete with other thermoplastic materials on cost, 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.

The basic raw materials for our Isocyanates and Polyols are commodity petrochemical products. We typically purchase these on the open market, partially under long-term contracts, as Bayer generally does not produce petrochemicals. However, through our acquisition of Lyondell's polyol business, we have acquired a low-cost source for propylene oxide, one of our key raw materials. Although these raw materials are readily available, they are subject to price fluctuation driven by, for example, changes in world oil prices.

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 BASF, Dow Chemical and Huntsman.

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### ***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
- reducing 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 areas of innovation in the polyurethane field are currently the development of new or improved polyether polyol types and blends as well as the improvement of manufacturing processes. The business group concentrates its research and development efforts with respect to aromatic isocyanates on improving existing products and technologies for their manufacture. High throughput experiments are used for the development of new formulations and will help to reduce time-to-market for new products.

### **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. Colorants has been transferred to Bayer Chemicals as of January 2003.

#### ***Major Products***

##### *Resins and Hardeners*

Polyurethane lacquers are formed through the combination of an isocyanates component with a polyol or polyester component. We offer a variety of components (for example *Desmophen*®, *Rucote*® and *Bayhydrol*®) and isocyanates (for example *Desmodur L*®, *Desmodur N*®, *Desmodur BL*®, *Bayhydur*®, and *Crelan*®). This variety enables us to provide custom-tailored solutions for a number of different applications.

##### *Special raw materials*

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

##### *Adhesive raw materials*

*Dispercoll*® and *Desmocoll*® 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*® 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.





**Table of Contents****Markets and Distribution**

Our Coatings and Colorants business group is a major producer of raw materials for coatings 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:

|                                   | <b>2002</b>         | <b>2001</b>  | <b>2000</b>  |
|-----------------------------------|---------------------|--------------|--------------|
|                                   | (euros in millions) |              |              |
| Europe                            | 891                 | 961          | 934          |
| North America                     | 538                 | 555          | 523          |
| Asia/Pacific                      | 345                 | 336          | 311          |
| Latin America/ Africa/Middle East | 167                 | 162          | 178          |
| <b>Total</b>                      | <b>1,941</b>        | <b>2,014</b> | <b>1,946</b> |

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

|                        | <b>2002</b>         | <b>2001</b>  | <b>2000</b>  |
|------------------------|---------------------|--------------|--------------|
|                        | (euros in millions) |              |              |
| Resins                 | 282                 | 253          | 211          |
| Aliphatic isocyanates  | 578                 | 553          | 543          |
| Aromatic isocyanates   | 212                 | 230          | 223          |
| Special raw materials  | 161                 | 186          | 161          |
| Adhesive raw materials | 218                 | 242          | 240          |
| Colorants              | 490                 | 550          | 568          |
| <b>Total</b>           | <b>1,941</b>        | <b>2,014</b> | <b>1,946</b> |

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.

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

*Resin components:* 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 high performance resin components and aliphatic and aromatic polyisocyanates, which we formulate into environmentally friendly coatings, reducing their use of natural resources. We are also exploring ways of reducing the amount of solvent needed for the use of our raw materials within coating applications.

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

**Fibers****Overview**

Our Fibers business has been reclassified from discontinuing operations to continuing operations under the segment Polyurethanes, Colorants, Fibers. Our Fibers business focuses on the development, production and marketing of fibers for the textile industry under the tradename *Dorlastan*®, and for general applications under the tradenames *Atlas*®, *Perlon*® and *Bayco*®. We will evaluate the strategic direction of the reclassified operations of the business group, including the production facilities for Dorlastan spandex fibers and Perlon monofil at three sites – Dormagen and Goch, Germany, and Bushy Park, South Carolina.

**Markets and Distribution**

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

|                                   | <u>2002</u>         | <u>2001</u>       | <u>2000</u>       |
|-----------------------------------|---------------------|-------------------|-------------------|
|                                   | (euros in millions) |                   |                   |
| Europe                            | 99                  | 134               | 257               |
| North America                     | 52                  | 54                | 67                |
| Asia/Pacific                      | 24                  | 15                | 55                |
| Latin America/ Africa/Middle East | 25                  | 29                | 127               |
|                                   | <u>          </u>   | <u>          </u> | <u>          </u> |
| Total                             | 200                 | 232               | 506               |
|                                   | <u>          </u>   | <u>          </u> | <u>          </u> |

**CHEMICALS****Overview**

The Chemicals segment is comprised of the Basic and Fine Chemicals, Specialty Products, H.C. Starck and Wolff Walsrode business groups.

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

|  | <u>2002</u>         | <u>2001</u> | <u>2000</u> |
|--|---------------------|-------------|-------------|
|  | (euros in millions) |             |             |
| External net sales   | 3,304               | 3,749       | 3,410       |
| Percentage of total sales (continuing operations)            | 11.4                | 12.9        | 11.7        |
| Intersegment sales   | 409                 | 456         | 466         |
| Operating result before exceptional items                    | 160                 | 271         | 370         |
| Percentage of total operating result (continuing operations) | 16.2                | 14.7        | 11.3        |
| Exceptional items  | (26)                | (68)        | 24          |
| Operating result   | 134                 | 203         | 394         |

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

**Segment Strategy**

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The focus of our activities in the Chemicals segment is improving our margins. We aim to achieve this goal by streamlining our portfolio and focusing on selected activities in the chemical industry. A recent example is the divestment of the non-core Haarmann & Reimer subsidiary effective September 30, 2002.

**Table of Contents****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 (for example benzene or chlorine). 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.

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 industries using organic or anorganic 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:

|                                   | <b>2002</b>         | <b>2001</b> | <b>2000</b> |
|-----------------------------------|---------------------|-------------|-------------|
|                                   | (euros in millions) |             |             |
| Europe                            | 611                 | 666         | 622         |
| North America                     | 124                 | 167         | 194         |
| Asia/Pacific                      | 127                 | 122         | 129         |
| Latin America/ Africa/Middle East | 69                  | 70          | 61          |
|                                   | —                   | —           | —           |
| Total                             | 931                 | 1,025       | 1,006       |

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

|                           | <b>2002</b>         | <b>2001</b> | <b>2000</b> |
|---------------------------|---------------------|-------------|-------------|
|                           | (euros in millions) |             |             |
| Fine chemicals            | 215                 | 276         | 272         |
| Basic chemicals           | 515                 | 506         | 487         |
| Inorganic basic chemicals | 170                 | 220         | 197         |
| Others                    | 31                  | 23          | 50          |
|                           | —                   | —           | —           |
| Total                     | 931                 | 1,025       | 1,006       |

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Our Basic and Fine Chemicals business group is not seasonal. Basic chemicals are more influenced by fluctuations in raw material prices (for example toluene, benzene) than are fine chemicals, primarily because our basic chemical operations make greater use of petrochemicals, whose prices are 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.

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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**

Research and development for Fine Chemicals concentrates on the development of innovative, cost efficient and reliable processes for the custom manufacturing of industrial intermediates and products.

For Basic Chemicals, our efforts focus on technological and chemical improvements of manufacturing processes of industrial intermediates.

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

**Specialty Products****Overview**

In contrast to other chemicals business lines, our Specialty Products business group displays a high degree of custom tailoring for the specific needs of its customers. The business group serves a broad range of industries, including textile, paper and leather manufacture; material protection products; polymer producing and processing industries; and water treatment.

The Specialty Products business group offers its customers thousands of compounds. 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 to a general chemical composition and area of function.

**Markets and Distribution**

The specialty chemicals market is highly segmented. Market participants range from small local suppliers to multinational concerns. In recent years this market has been consolidating, with heavy mergers and acquisition activity. We believe that this business group's products are, because of their specialized nature, less subject to commoditization than other chemical products, and that Specialty Products' profitability may be more sustainable than that of the broader chemicals market.

Given the individualized nature of its products, the business group's marketing activities focus on individual customer requirements. Specialty Products has a worldwide network of local subsidiaries and production sites. This network uses an internal sales force. Technicians back up our marketing efforts by assisting customers in creating tailor-made solutions and providing them with commercial and technical assistance.

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

|                                   | 2002                | 2001  | 2000  |
|-----------------------------------|---------------------|-------|-------|
|                                   | (euros in millions) |       |       |
| Europe                            | 631                 | 644   | 607   |
| North America                     | 294                 | 379   | 239   |
| Asia/Pacific                      | 264                 | 244   | 257   |
| Latin America/ Africa/Middle East | 214                 | 202   | 209   |
|                                   | 1,403               | 1,469 | 1,312 |

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

|  | 2002                | 2001         | 2000         |
|--|---------------------|--------------|--------------|
|  | (euros in millions) |              |              |
| Textile, paper and leather chemicals                                       | 890                 | 1,038        | 873          |
| Performance chemicals, material protection, ion exchange resins and others | 513                 | 431          | 439          |
| <b>Total</b>   | <b>1,403</b>        | <b>1,469</b> | <b>1,312</b> |

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. Specialty Products has historically not been affected by shortages; however, rising oil prices have had a moderate impact on production cost.

We regard Avecia, BASF, Ciba Specialty Chemicals, Clariant, Rhodia and Rohm & Haas as our principal competitors across a number of the Specialty Products business group's activities.

**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 water treatment and metal recovery;
- new fungicides for material protection; and
- improved optical brighteners and sizing agents for the paper industry.

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

We currently have over 100 products in late stages of development. We expect to launch these products during 2003 and 2004. In 2002 we launched more than 80 products of our 2002/2003 pipeline.

**H.C. Starck****Overview**

Our subsidiary H.C. Starck develops, produces and markets metallic and ceramic powders and mill products for various markets and applications. H.C. Starck constantly pursues its policy of forward integration. With the integration of CSM Industries, we have made full use of the synergies of the two companies. As a result of this acquisition, we are able to manufacture higher-value-added products made from tungsten and molybdenum for the medical, aerospace, electronics, explosive detection and other demanding markets. In the first quarter of 2003, H.C. Starck acquired a majority interest in InDec B.V. InDec produces ceramic cells for use in fuel cell systems. We expect these ceramic cells to enable H.C. Starck to advance into the Solid Oxide Fuel Cell (SOFC) market and to develop higher-value added products in the field of functional ceramics. There are many future large-scale applications of SOFC systems, such as residential and commercial co-generation,



auxiliary power units for trucks, buses and passenger cars and numerous other applications where reliable, high quality power is needed.

***Major Products***

We produce a broad portfolio of products ranging from ceramic materials to such metals as tungsten, molybdenum, tantalum and niobium and their various alloys and compounds for industrial customers. We manufacture these materials not only in the form of ceramic or metallic powders but also as solid intermediates or

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finished parts. This gives us the ability to partner with our customers and provide engineering and design services for a wide variety of markets and end uses. We bring this ability to customers in the aerospace, medical, chemical, electronic, lighting, sophisticated tooling and optical components industries.

### *Heavy metal and Tungsten alloy*

*Kulite*<sup>TM</sup> is our trademark for fabricated parts made from tungsten alloy powders. These products are used, for instance, as balance weights in the aerospace industry.

### *Battery intermediates*

*Ampergy*<sup>®</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 and 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 under the brand name *Lubriform*<sup>®</sup>. Our customers use these compounds in producing lubricants. The automotive industry also uses Molyform in manufacturing brake linings.

*Amperkat*<sup>®</sup> is the trade name for our line of chemical catalysts. The chemical industry uses these products in a variety of applications, such as chemical synthesis, plastics production, hydration processes and desulphurization for generating low sulphur diesel-fuels.

### *Thermal spray powders*

*Amperit*<sup>®</sup> is the trade name of our line of thermal spray powders. Our customers use these powders to give their products a variety of protective coatings. Our Amperit customers are primarily from the machine tool and aeronautics industries.

### *Ceramic products*

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

## ***Markets and Distribution***

World tungsten demand has stagnated since the middle of 2002 after a long period of growth, while the hard metals markets in the United States, Europe and Japan are declining. The market for battery intermediates has recovered slightly, and the battery industry is expecting moderate growth. Prices are still under extreme pressure because of the competitive situation resulting from overcapacity.

The weakness of the electronic market intensified in 2002. Combined with inventory reduction at all levels of the supply chain, it caused a significant decrease in both sales and profits for our electronic business.

Although growth in the demand for ceramic products has been steady, strong competitive pressure has depressed prices. We expect, however, that the market for H.C. Starck Ceramics products will continue to grow steadily for the foreseeable future.

For our fabricated products business, we believe that we gain strength from the wide variety of markets and customers that we serve. We believe that China will be a promising market with large demand for all of our fabricated products in the lighting, telecommunications and transportation industries.

In 2002 the main factor influencing the H.C. Starck Group was the downturn of the electronics industry.

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

|                                   | 2002                | 2001       | 2000       |
|-----------------------------------|---------------------|------------|------------|
|                                   | (euros in millions) |            |            |
| Europe                            | 248                 | 325        | 280        |
| North America                     | 148                 | 234        | 143        |
| Asia/Pacific                      | 196                 | 208        | 196        |
| Latin America/ Africa/Middle East | 15                  | 44         | 46         |
|                                   | <u>607</u>          | <u>811</u> | <u>665</u> |

China is the primary source for the raw materials for tungsten products. In the past, China had limited production, thereby causing shortages. We have our own tungsten production 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. Tantalum raw-material prices have normalized during 2002, and we believe that our supply of raw material is secure due to long term contracts.

H.C. Starck has its own international 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, Italy 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. 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 and compounds:* Bergla, Cabot Group (including its associated joint ventures), Mitsui, MolymetOMG, Osram Sylvania, Umicore, Plansee AG, Philips Elmet, Phelps Dodge;

*Battery intermediates:* OMG, Tanaka, Umicore;

*Chemical catalysts:* Activated Metals, Degussa, Grace-Davison, Engelhard;

*Ceramic products:* Denki Kagaku, SB Boron; GE Ceramics, Tokuyama Soda; and

*Thermal spray powders:* Praxair, Sulzer Metco, Woka.

**Research and Development**

H.C. Starck focuses its research and development activities on innovative products and system solutions. For example, we are developing high-capacity tantalum and niobium powders as intermediates for capacitors, and precursors for thin metallic films in microelectronic devices. We are also developing 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 secondary batteries, fuel cells, hybrid vehicles and other energy storage and power generation applications.

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

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We currently have seven products in late stages of development, and expect to start and continue their launch during 2003. These products are:

| Product/Brand name                            | Application                   |
|---|-------------------------------|
| Niobium and Niobium Oxide powder              | Capacitors                    |
| Ta/Nb mill products                           | Capacitors                    |
| High-capacity tantalum powder                 | Capacitors                    |
| Sophisticated electronic heat sinks           | Electronics                   |
| High temperature furnace Materials            | Furnace construction          |
| Refractory metals products                    | Refractory metals products    |
| Alternative (ferrous, nickel, cobalt) binders | Diamond tools and hard metals |

**Wolff Walsrode****Overview**

We operate the Wolff Walsrode business group primarily through 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 in building materials, industrial coatings and inks, pharmaceuticals, food and health care products, as well as various plastic films.

To prepare for divestments of a significant portion of Wolff's films businesses, we have organized the business group into five new operating subsidiaries. Additionally, we created a service company that supplies the enterprises at Bomlitz with predominantly technical services. These subsidiaries are owned by Wolff Walsrode AG, which now serves as a holding company. In 2001, we sold the Covexx business, which had been responsible for our former Combithen and Combitherm food packaging film lines. In January 2002, Wolff's former thermoplastic polyurethane films business was integrated into Bayer's Plastics business group.

**Major Products***Cellulose Derivatives*

*Walocel M*® is an additive that regulates water balance. It improves the workability and adhesion of building materials such as tile adhesives, plasters, mortars and dispersion paints.

*Walsroder NC*® 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.

*Walocel C*® is used primarily as a thickener and binder in water-based systems. It is used in pharmaceuticals, dairy products and toothpaste, as well as in ceramics compounding, textile and paper manufacture and oil drilling.

*Plastic films*

*Walothan*® is a class of films based on Polypropylen for food and cigarette packaging and paper lamination.

*Walsroder*® is a casing used in the production of a wide range of sausages.

**Markets and Distribution**

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.

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

|                                   | <b>2002</b>         | <b>2001</b> | <b>2000</b> |
|-----------------------------------|---------------------|-------------|-------------|
|                                   | (euros in millions) |             |             |
| Europe                            | 251                 | 301         | 295         |
| North America                     | 41                  | 79          | 76          |
| Asia/Pacific                      | 20                  | 20          | 19          |
| Latin America/ Africa/Middle East | 51                  | 44          | 37          |
|                                   | <b>363</b>          | <b>444</b>  | <b>427</b>  |

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

|                       | <b>2002</b>         | <b>2001</b> | <b>2000</b> |
|-----------------------|---------------------|-------------|-------------|
|                       | (euros in millions) |             |             |
| Cellulose derivatives | 231                 | 210         | 195         |
| Plastic films         | 114                 | 221         | 229         |
| Other                 | 18                  | 13          | 3           |
|                       | <b>363</b>          | <b>444</b>  | <b>427</b>  |

The decrease in plastic films sales in 2002 resulted primarily from the divestments discussed above. The increase in the segment Other in 2001 and 2002 is based on external sales of our service companies at the Bomlitz location.

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 and cotton. Because pulp producers have been expanding capacity in recent years, we have not had any significant problems with availability. The raw materials for our plastic films include a variety of polymers. These polymers are readily available, but 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, Nitroquimica Brasileira, Noviant and Akzo. In the plastic films business, our main competitor is Exxon Mobil (BOPP films).

**Research and Development**

Wolff Cellulosics is the Bayer Group's competence center for cellulose chemistry. Our research on cellulose and other polysaccharides takes advantage of the unique structural and chemical properties of these important renewable materials. By converting them into Wolff's derivative specialty products and optimizing their application properties, high customer value is created. This work is focused on products such as additives for building materials, binders for printing inks and coatings, as well as formulation aids for food, cosmetics and pharmaceuticals. Besides product development, we are constantly improving our production processes.

Wolff's primary research and development facilities, including a new pilot plant, are in Bomlitz, near Walsrode, Germany.



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The following new products were developed in close cooperation with our customers and introduced to the market by Wolff in 2002:

New Walocel M additives (based on methyl cellulose): A product line for high performance tile adhesives and a special grade for cement extrusion applications;

a highly viscous Walocel C additive (based on carboxy methyl cellulose) used for example, in pet food formulations;

phthalate-free plastified nitrocellulose that complies with the new European regulations; and

a new supply form of nitrocellulose (free-flowing product packed in cartons).

We currently have two additional product lines in late stages of development:

| <b>Product/ Brand name</b>  | <b>Application</b>   | <b>Status</b> |
|---|--|---------------|
| New Walocel M additive (based on hydroxy propyl methyl cellulose, HPMC) | Formulation of pharmaceuticals and food                                | Pre-marketing |
| New Walocel M additive (based on methyl cellulose)                      | Ready to use Joint compounds (filling compounds for wall board joints) | Pre-marketing |

**Table of Contents****RESEARCH AND DEVELOPMENT**

To supplement our internal research and development efforts, we have established an integrated program for collaborations with research-oriented companies that are leaders in their technologies. 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 biological mechanisms through characterization of new active compounds to identification of a novel development candidate. We regard research collaboration as indispensable to maintain a continuous flow of innovative active ingredients for human and animal health and crop protection products. See also *CropScience Research and Development*.

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.

| <b>Research Cycle</b>   | <b>Discipline/Technique</b>   | <b>Partners</b>  |
|---|---|--|
| Understanding the disease mechanism and identifying new targets   | 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; Incyte; Affymetrix; CuraGen; Oxford Glycoscience; Exelixis; Paradigm<br><br>LION Bioscience; Incyte Exelixis; Paradigm |
| Screening the candidate substances  | High throughput screening, or HTS ( <i>rapid, automated testing of compounds for potential effectiveness against a given target</i> ) Toxic- and Pharmacogenomics ( <i>increasing the quality and probability of success of drug candidates</i> )   | Axxam; Greiner<br><br>CuraGen  |
| Increasing the pool of potential drug candidates by small-chemical molecules and macromolecules ( <i>proteins, peptides</i> ) | Combinatorial chemistry/Substance synthesis ( <i>techniques for increasing the number and diversity of test compounds</i> ); Pool of Bayer biomolecules (for example, <i>monoclonal antibodies</i> )  | ArQule; ComGenex<br><br>Morphosys  |

In addition to the collaborations focusing on disease mechanisms and screening, we have established collaborations in the field of medicinal chemistry. These collaborations together with our internal research efforts have given us access to approximately 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 research partnerships—those with Millennium Inc., 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 collaborations 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.



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### ***Millennium***

Together with Millennium, we have created a substantial collaborative effort to use the tools of genomics to identify new drug targets. Through this collaboration, we expect Millennium to provide us with more than 100 assays on disease-relevant proprietary target genes for high-throughput screening.

We expect to invest up to \$465 million in our collaboration with Millennium. The current collaboration program is scheduled to expire on October 31, 2003. An additional goal of our collaboration is to obtain technology and know-how to enable us to continue the genomics program independently after the completion of the collaboration.

### ***LION Bioscience***

We have established two collaboration projects with LION Biosciences, a bioinformatics technology provider.

Under the first project, which began in 1999, LION established a subsidiary in Cambridge, Massachusetts, LION Bioscience Research Inc. (LBRI). LBRI provides our life sciences effort with a strong IT platform and software development program and allows us to review drug-relevant target gene data for further use in our laboratories. LBRI delivered more than 400 disease-related targets, which we have developed into a large number of new patent applications.

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

We expect to invest a total of \$82.5 million in our collaborations with LION, including a \$30 million equity investment that we have already made. We have an option to acquire LBRI when both collaboration projects are complete.

### ***CuraGen***

In 2001 we initiated two collaborative projects with CuraGen. In the first project, CuraGen agreed to provide drug targets during an initial five-year period. The goal is to identify drug candidates for obesity and diabetes treatment for clinical development over a 15-year period. During this period, we share the expenses of pre-clinical and clinical development (up to \$1.3 billion). We also share with CuraGen co-promotion rights and any profits derived from these drugs.

The goal of the second project is to compile a database of gene-based markers and information to predict potential drug toxicities, understand how specific drugs function and identify new disease conditions. Through this project, we expect to reduce drug development costs and create safer and more effective drugs. We plan to invest a total of \$124 million in this five-year project, including an \$85 million equity investment that we have already made.

### ***Product Development Collaborations***

We have two major collaborations for co-development of drug candidates, one with Onyx and one with GlaxoSmithKline.

*Onyx.* Bayer and Onyx are co-developing Raf Kinase Inhibitor, an investigational compound directed against a specific molecular target involved in excess growth signaling in cancer. This collaboration results in Onyx funding 50 percent of the development costs for Raf-Kinase Inhibitor. In return, Onyx has a 50/50 profit share in the United States, where the companies may co-promote the product. Everywhere else in the world except Japan, Onyx's share is somewhat less than 50 percent since Bayer has exclusive marketing rights. In Japan, Bayer funds product development and Onyx receives a royalty.

*GlaxoSmithKline.* Vardenafil, the active ingredient of Levitra, researched by Bayer, will be marketed by Bayer and GlaxoSmithKline through a worldwide co-promotion and co-development agreement signed in November 2001.

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**INTELLECTUAL PROPERTY PROTECTION**

To succeed, Bayer must continually seek new products that provide our customers with better solutions for existing problems and new solutions for emerging problems. This requires us to expend significant effort on research, development, manufacturing and marketing. To preserve the value of our investment, we rely on the patent and trademarks laws of the jurisdictions where we do business. In addition, our production technologies typically incorporate specialized proprietary know-how.

We have both developed intellectual property internally and acquired it as assignee through acquisitions. In addition, Bayer 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**

We seek to protect our products with patents in major markets. 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 protection that a patent provides varies from country to country, depending on the type of claim granted, the scope of the claim's coverage and the legal remedies available for enforcement. For example, although patent protection in the United States is generally strong, under some circumstances U.S. law permits generic pharmaceutical manufacturers to seek regulatory approval of generic products before the patents expire. See Item 8, *Financial Information - Legal Proceedings*. In addition, some developing countries have announced plans to reduce 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 patents are important to our business, we believe that, with the exception of the patents covering Adalat, Avelox, Cipro and Imidacloprid, no single patent (or group of related patents) is material to our 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 a 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 extend or restore patent terms or provide supplementary protection to compensate for patent term loss due to regulatory review and substantial investments in product research and development and regulatory approval. Our policy is to obtain these extensions where possible.

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Patent protection 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 under laws other than patent laws.

The following table sets forth the expiration dates in our major markets of the patents covering Adalat, Avelox, Ciprofloxacin, Imidacloprid and Vardenafil:

| Product                        | Market  |        |      |       |       |       |        |        |
|--------------------------------|---------|--------|------|-------|-------|-------|--------|--------|
|                                | Germany | France | U.K. | Italy | Spain | Japan | U.S.A. | Canada |
| 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   |
| Avelox                         |         |        |      |       |       |       |        |        |
| 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   |
| Ciprofloxacin                  |         |        |      |       |       |       |        |        |
| 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                   | 2006    | 2006   | 2006 | 2006  | 2007  | 2005  | 2006   | 2007   |
| Vardenafil compound            | 2028    | 2028   | 2018 | 2018  | 2028  | 2018  | 2018   | 2018   |

\* Composition

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

**Trademarks**

Our best-known trademarks include Alka-Seltzer, Aspirin, Canesten, Flint, One-A-Day, Rid and Admire, 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.

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### **GOVERNMENTAL REGULATION**

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

#### **Product Regulation**

The primary emphasis of product regulation 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 in our Health Care business. In addition, our pharmaceutical facilities typically require regulatory approval and are subject to periodic re-inspection.

The Toxic Substance Control Act (TSCA) administered under the U.S. Environmental Protection Agency (EPA) regulates product registrations (PMNs) for new industrial chemicals and polymers and can also regulate existing chemicals under test rules. In addition, the U.S. FDA food-contact regulations permit use of many of our chemicals and materials in food-contact applications. Furthermore, the EPA registers biocidal products for use in anti-microbial applications in addition to those for agricultural uses. For industrial chemicals and polymers in the United States, in order to insure proper use and handling, product safety is regulated by the OSHA Hazard Communication. This regulation requires notification to our workers and customers through Material Safety Data Sheets and precautionary labels for potential hazards from exposure to chemicals.

#### ***Pharmaceutical Products***

Pharmaceutical products must be examined and approved by regulatory agencies for safety and efficacy before we may market them. Our pharmaceutical facilities require regulatory approval and are subject to periodic re-inspection. All our operations must comply with applicable quality and environmental regulations.

The various regulatory authorities administer and execute requirements covering the testing, safety, efficacy, labeling, approval, manufacturing and marketing of prescription pharmaceuticals. Pharmaceutical products must receive regulatory approval before they can be marketed. 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. If a drug meets the approval requirements, the regulatory authority will grant a product license for marketing. In some countries, negotiation on pricing and reimbursement follow the grant of the product license. The process of developing a pharmaceutical product from discovery through testing, registration and initial product launch could take approximately 10 years. The manufacturer is required to monitor adverse reactions and report them to the appropriate authorities.

Increasing requirements from the FDA, the U.S. regulatory agency, have resulted in a higher investment of time and money necessary to develop new products and bring them to market. The Food and Drug Administration Modernization Act of 1997 was principally designed to streamline regulatory procedures and improve the regulation of drugs, medical devices and food with a view to expediting the premarket review process for new products.

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). The other method is the Mutual Recognition Procedure, in which one country makes the principal evaluation. The other member states then have 90 days to decide if they accept or reject the decision made by the reference member state.

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Historically, two issues have complicated the approval process in Japan for drugs developed outside of that country. First, the Japanese approval agency does not recognize 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. However, with the process of ICH (International Conference on Harmonization), the Japanese approval agency is increasingly accepting study results and documentation used in registration procedures in the United States and Europe.

Our pharmaceuticals segment markets 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 other markets, biologicals are regulated more stringently than 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 stability throughout their shelf-life. Because biological products typically cannot withstand conventional sterilization techniques, we must use special processes 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, the European Union, the United States and Japan have sought to shorten development and registration times for medicinal products by harmonizing the individual requirements of the three regions. This 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, such as over-the-counter medications, are subject to regulations similar to those in the Pharmaceuticals segment. 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 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. Registered establishments are subject to periodic inspections by FDA investigators to ensure compliance with quality standards.

Most IVD products require FDA clearance or approval before they may be marketed. For devices requiring clearance, we seek where possible to obtain it on the grounds that the new product is substantially equivalent to a product 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 submit extensive data to the FDA based on actual clinical trials. FDA approval almost invariably involves an inspection of our facilities and a review of our design and manufacturing processes. After obtaining FDA approval, we must report all adverse incidents in which a product was allegedly involved.

In the European Union, two 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 used *in vitro*, that is 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 the European Commission. All of these requirements involve product registration and approval and the reporting of adverse incidents and corrective actions.

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### **Animal Health Products**

The FDA's Center for Veterinary Medicine 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).

### **Crop Protection Products**

In most countries crop protection products must obtain government regulatory approval prior to marketing. This regulatory framework seeks to protect the consumer, the applicator and the environment. The strictest standards are applied in the United States, Japan and Western Europe. Because humans may be exposed to these products (for example, through residues on food) the safety assessment considers human risk as well. If the product is used on a food crop, a legal limit for chemical residue is established.

It generally takes seven to nine years from discovery of a new crop protection product until the dossier is submitted to the appropriate regulatory authority for product approval. Afterwards the authorities usually need another two to four years to evaluate the data submitted in order to decide whether a registration can be granted.

The introduction of new regulations, data requirements or test guidelines is a normal part of enhancing safety assessments for plant protection products. However, unpredictable new requirements and inappropriate deadlines have led to numerous delays of registrations of plant protection products in the past, especially in the authorization processes in the EU and in the NAFTA countries. Therefore, our CropScience segment must anticipate new regulatory trends and must closely follow the process of developing and requiring new data. CropScience also actively participates in these processes by commenting on draft guidelines and regulations proposed by the authorities.

### **Environmental Science Products**

In both the professional and the consumer business, as in crop protection, our products must obtain government regulatory approval prior to marketing. In most countries Environmental Science products are regulated by authorities other than those which regulate the crop protection products. The regulatory requirements are often different from crop protection products, due to different routes of exposure. Generally, there is an increase of regulatory requirements, in particular in the United States, Europe and Japan. To some extent the regulatory files developed for crop protection products with the same active ingredients can also be used for the regulatory purposes in the Environmental Science area.

In Europe the products sold in the professional pest control area fall under the Biocidal Products Directive (BPD), and basic manufacturers must develop complete regulatory dossiers in order to support their active ingredients and products under the BPD. Green industry products and consumer lawn and garden products are governed by the Plant Protection Directive.

In the United States registration of Environmental Science products is granted by the EPA. There has been an increase of registration requirements due to the implementation of the Food Quality Protection Act (FQPA), which considers both dietary and non-dietary exposure aspects.

The review period for registration depends on the country and could vary from two to five years for a product containing a new active ingredient.

### **BioScience Products**

Biotechnology products, in particular those based on genetic modification, are subject to specific regulatory oversight covering environmental impact as well as use and trade of products and derivatives in food and feed. In the United States, the main regulatory authorities are the USDA, the FDA and the EPA.

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### **Proposed new EU Regulations**

We must comply with an increasing range of regulatory measures concerning testing, manufacturing and marketing of our products. In some countries, including the United States, regulatory controls have become increasingly demanding. We expect this trend to continue and expand to other countries.

Within the European Union a new chemicals policy has been proposed and may become effective in 2005/2006. It will 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 the 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 that stricter regulatory regimes will not delay product development or restrict marketing and sales.

In addition, an EU directive on emissions trading, expected to become effective in 2005, could affect Bayer's business opportunities especially in Europe. The directive requires carbon dioxide emissions to be reduced by 21 percent in Germany and 7.5 percent in Belgium, in each case based on 1990 carbon dioxide emission levels. Compliance with this directive could require relevant capital expenditures by Bayer.

### **Health, Safety and 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 increasingly stringent environmental regulations, which address:

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 regulations that may require us to remove or mitigate the effects of the disposal or release of chemical substances. Under some of these regulations, a current or previous owner or operator of property may be held liable for the costs of remediation on, under, or in its property, without regard as to whether it 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 industrial sites have long histories, we cannot predict the effect these regulations will have on us. We cannot assure you that soil or groundwater contamination will not occur or be discovered.

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. When necessary, we incur capital expenditures to ensure this. We expect that Bayer will continue to be subject to stringent environmental regulation. Although we cannot predict future expenditures, we believe that current spending trends will continue.

We are subject to 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, companies including Bayer have been notified that the EPA, the 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.

It is difficult to estimate the future costs of environmental protection and remediation because of uncertainties about the status of regulations and information related to individual sites. Taking into consideration our experience and currently known facts, we believe that capital expenditures and remedial actions to comply

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with environmental regulations will not have a material adverse effect on our financial position, results of operations or cash flows. As of December 31, 2002, we had reserved 202 million for environmental matters.

We believe that we are in substantial compliance with applicable environmental, health and safety laws and regulations. We devote considerable attention to the health and safety of our employees and the protection of public health and the environment. Although this compliance has not adversely effected 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.



**Table of Contents****ORGANIZATIONAL STRUCTURE**

Bayer AG is the ultimate parent company of the Bayer Group. Until December 31, 2002, the Bayer Group operated in seven segments comprised of 17 business groups.

The Bayer Group's new holding structure is based on the four operating units HealthCare, CropScience, Polymers and Chemicals, and three service areas that provide key support and administrative services. See *Business*. Bayer AG will be the strategic holding company of the Bayer Group. Bayer AG will consist of the following corporate center functions: the Corporate Office; Communications; Investor Relations; Corporate Auditing; International Human Resources & Organization; Human Resources Germany; Corporate Development; Law & Patents, Insurance; Finance; Group Accounting and Controlling; Governmental & Product Affairs; and Regional Coordination. See Item 8, *Financial Information* *Legal Proceedings* *German shareholder litigation*.

**Subsidiaries**

The following table lists Bayer AG's principal consolidated subsidiaries as of December 31, 2002 and its beneficial ownership interest in each.

| Company Name and Place of Business                | Bayer's interest (%) |
|---|----------------------|
| <b>Germany</b>                                    |                      |
| Bayer Buna GmbH, Marl                             | 100                  |
| Bayer CropScience AG, Monheim                     | 100                  |
| Bayer Distribution Service GmbH, Leverkusen       | 100                  |
| Bayer Industrieprodukte GmbH & Co. KG, Leverkusen | 100                  |
| Bayer Vital GmbH, Leverkusen                      | 100                  |
| H.C. Starck GmbH, Goslar                          | 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 CropScience France S.A., France             | 100                  |
| Bayer CropScience Holding S.A., France            | 100                  |
| Bayer CropScience S.A., France                    | 100                  |
| Bayer Hispania, S.A., Spain                       | 100                  |
| Bayer International S.A., Switzerland             | 99.7                 |
| Bayer Pharma S.A., France                         | 99.9                 |
| Bayer plc, U.K.                                   | 100                  |
| Bayer Rubber N.V., Belgium                        | 100                  |
| Bayer S.A.S., France                              | 99.9                 |
| Bayer S.p.A., Italy                               | 100                  |
| Quimica Farmaceutica Bayer, S.A., Spain           | 100                  |
| <b>North America</b>                              |                      |
| Bayer Corporation, United States                  | 100                  |
| Bayer CropScience LP, United States               | 100                  |
| Bayer CropScience Inc., Canada                    | 100                  |
| Bayer Inc., Canada                                | 100                  |
| <b>Asia/Pacific</b>                               |                      |
| Bayer (India) Ltd., India                         | 55.3                 |
| Bayer (South East Asia) Pte Ltd., Singapore       | 100                  |

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| Company Name and Place of Business       | Bayer's interest (%) |
|--|----------------------|
| Bayer Australia Ltd., Australia          | 99.9                 |
| Bayer China Co. Ltd., Hong Kong          | 99.3                 |
| Bayer CropScience K.K., Japan            | 100                  |
| Bayer Ltd., Japan                        | 100                  |
| Bayer Polymers Co. Ltd., Hong Kong       | 100                  |
| Bayer Yakuhin Ltd., Japan                | 100                  |
| Sumika Bayer Urethane Co., Ltd., Japan   | 60                   |
| <b>Latin America/ Africa/Middle East</b> |                      |
| Bayer (Proprietary) Ltd., South Africa   | 100                  |
| Bayer CropScience Brasil S.A., Brazil    | 100                  |
| Bayer de México, S.A.de C.V., Mexico.    | 100                  |
| Bayer S.A., Argentina                    | 99.9                 |
| Bayer S.A., Brazil                       | 99.9                 |

**PROPERTY, PLANTS AND EQUIPMENT**

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 also 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 (for example, German-law hereditary building rights or *Erbbaurechte* and granted land-use rights in Asian countries).

**Table of Contents****Item 5. Operating and Financial Review and Prospects**

Prospective investors should read the following operating and financial review and prospects together with the consolidated financial statements and the notes to those financial statements included elsewhere in this annual report. We have prepared these financial statements in accordance with IFRS, 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.

We have based the presentation of our results in this section on certain significant accounting assumptions. For a more detailed description of these assumptions, see *Basis of Presentation Critical Accounting Policies*, below.

**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 330 consolidated subsidiaries. We are organized into seven business segments: Pharmaceutical, Biological Products; Consumer Care, Diagnostics; Animal Health; CropScience; Plastics, Rubber; Polyurethanes, Coatings, Fibers; and Chemicals. Over the course of this year, we expect to complete the implementation of plans to transform Bayer AG into a strategic holding company that will hold our operating businesses through four newly-formed direct operating subsidiaries. See Item 4, *Information on the Company Business*.

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 2000 we spent a total of 4.2 billion to acquire 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 also acquired the Flint line of strobilurin fungicides and the remaining outstanding shares of Misung Ltd. In 2001 we spent a total of 514 million on acquisitions. The largest acquisition in that year was the purchase by Bayer Corporation, our U.S. subsidiary, of the development, manufacturing and distribution rights for products that detect antibodies to the hepatitis C (HCV) and human immunodeficiency (HIV) viruses. Nearly equal in magnitude was our acquisition of the *Mikado*® corn herbicide, which included patents, other product rights and know-how.

In October 2001 we entered into an agreement to acquire Aventis CropScience from Aventis and Schering. We closed this transaction on June 3, 2002. In 2002 we also acquired Visible Genetics Inc. in Canada and Tectrade A/S in Denmark.

We selectively divest businesses and assets that no longer fit in our strategic plan. In 2000 we reduced our interest in the DyStar textile dyes joint venture to 35 percent when BASF became a joint venture partner. We now consider DyStar a non-core business. 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 and Germany, and in Myriad Genetics Inc. and Troponwerke. 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 product lines and classified the remainder of the Fibers business group as Discontinuing Operations. In May 2002 we decided to retain our Fibers business as part of Polymers. We will include the Fibers business in our continuing operations for all periods beginning with the second quarter of 2002. As part of the streamlining of our portfolio, we sold Haarmann & Reimer effective September 30, 2002. We also sold the remaining 30 percent of our Agfa business segment, of which we had already divested 70 percent in 1999. Effective March 1, 2002 we sold our 94.9 percent interest in Bayer Wohnungen. In addition, we sold a large part of the global household insecticides business of our Consumer Care

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business group. As a further part of our drive to streamline the portfolio, we divested our French and Spanish generic pharmaceutical operations. We also sold our 50 percent interest in PolymerLatex. This transaction was closed on May 9, 2003.

**OPERATING RESULTS 2002, 2001 and 2000**

We derive 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 and our ability to manage the life-cycles of existing products. Our business during 2002 was affected by widespread economic weakness in the world markets as well as, more specifically, strong downward pressure on prices. See *2002 compared with 2001 Net sales*. We recognize sales upon delivery of goods or rendering of services to third parties. We defer revenues from contracts that contain customer acceptance provisions until customer acceptance occurs or the contractual acceptance period has lapsed. Mergers and acquisition activities also affect our revenue. As a diversified global company, we often enter into numerous merger and acquisition transactions that, taken as a whole, can have a significant effect. 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 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 2002 and 2001 had a positive effect on net sales of 1.9 billion. This activity affected the comparison between the two years' sales figures as follows:

|  | <b>Change in 2002 from 2001</b> |
|--|---------------------------------|
|  | <b>(euros in millions)</b>      |
| <i>Acquisitions</i>                            |                                 |
| Aventis CropScience Holding S.A.               | 1,977                           |
| Tectrade A/S                                   | 12                              |
| Other  | 3                               |
|  | <u>1,992</u>                    |
| <i>Divestitures</i>                            |                                 |
| ChemDesign Corporation (divested in 2001)      | (56)                            |
| Covexx Films (divested in 2001)                | (42)                            |
| Sale of the generic business                   | (16)                            |
| Other  | (8)                             |
|  | <u>(122)</u>                    |
| Net effect on sales from continuing operations | 1,870                           |

We spent 427 million on restructuring in 2002, 214 million in 2001 and 200 million in 2000. The total charges in 2002 include 193 million in severance payments, a total of 166 million in accelerated amortization/

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depreciation and write-downs of intangible assets, property plant and equipment, and 68 million in other expenses. Our largest single restructuring expense in 2001, 43 million, related to the restructuring of our styrenics business in North America and Europe. 39 million related to the ongoing integration of the Lyondell polyols business. Our program to improve profitability in the Pharmaceuticals segment resulted in a restructuring charge of 26 million. In 2000, 61 million of our restructuring 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.

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.

|                            | 2002   | Change from<br>Previous Year<br>(%) | 2001   | Change from<br>Previous Year<br>(%) | 2000   |
|----------------------------|--------|-------------------------------------|--------|-------------------------------------|--------|
| (euros in millions)        |        |                                     |        |                                     |        |
| Net sales                  | 29,624 | (2.2)                               | 30,275 | (2.2)                               | 30,971 |
| Gross profit               | 11,739 | (8.7)                               | 12,851 | (10.2)                              | 14,318 |
| as percentage of sales(%)  | 39.6   |                                     | 42.4   |                                     | 46.2   |
| Operating result           | 1,574  | (2.3)                               | 1,611  | (51.0)                              | 3,287  |
| as percentage of sales(%)  | 5.3    |                                     | 5.3    |                                     | 10.6   |
| Income before income taxes | 956    | (14.3)                              | 1,115  | (62.7)                              | 2,990  |
| Net income                 | 1,060  | 9.8                                 | 965    | (46.9)                              | 1,816  |
| as percentage of sales(%)  | 3.6    |                                     | 3.2    |                                     | 5.9    |

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

|                                   | 2002   | Change from<br>Previous Year<br>(%) | 2001   | Change from<br>Previous Year<br>(%) | 2000   |
|-----------------------------------|--------|-------------------------------------|--------|-------------------------------------|--------|
| (euros in millions)               |        |                                     |        |                                     |        |
| Europe                            | 11,970 | 1.5                                 | 11,794 | 2.1                                 | 11,557 |
| North America                     | 8,863  | (7.0)                               | 9,527  | 1.1                                 | 9,419  |
| Asia/Pacific                      | 4,794  | 2.5                                 | 4,675  | (4.1)                               | 4,873  |
| Latin America/ Africa/Middle East | 3,331  | 4.9                                 | 3,174  | (3.0)                               | 3,272  |

**2002 compared with 2001***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 2002 net sales of 29.6 billion (2001: 30.3 billion) included 0.7 billion of our discontinuing operations (2001: 1.1 billion).

Our net sales from continuing operations were down by 0.2 billion in 2002, a decrease of 0.7 percent. Currency movements and price declines reduced sales by 5 percent and 2 percent, respectively, while portfolio changes particularly the acquisition of Aventis CropScience added 6 percent. Including discontinuing operations, our net sales decreased 2.2 percent from 2001.

Sales in our Pharmaceuticals, Biological Products segment decreased 16.8 percent in 2002 to 4.8 billion. Sales in our Consumer Care, Diagnostics segment decreased 8.5 percent to 3.8 billion. Sales in our Animal Health segment declined 0.9 percent to 850 million, while Sales in

our CropScience segment increased

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65.5 percent, to 4.7 billion. Sales in our Plastics, Rubber segment decreased 3.6 percent to 5.4 billion. Sales in the Polyurethanes, Coatings, Fibers segment decreased 0.8 percent to 5.4 billion. Sales in our Chemicals segment decreased 11.9 percent to 3.3 billion. See *Segment Data*, below, for a more detailed discussion of the results of each of our business segments.

### *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 decreased 7.8 percent in 2002. The total reported gross profit decreased 8.7 percent.

### *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.

The operating result from continuing operations before exceptional items decreased by 46.2 percent to 989 million. We attribute this development primarily to additional depreciation and amortization of goodwill determined and inventories remeasured in purchase accounting following the Aventis CropScience acquisition.

After exceptionals, the operating result amounted to 594 million. We incurred exceptional charges of 1.2 billion relating mainly to asset write-downs, restructuring measures and site consolidations. Also included here are provisions established in connection with an agreement reached with the U.S. federal authorities relating to an investigation into pharmaceutical product prices. These charges were partially offset by exceptional income of 817 million, generated mainly by the sale of Bayer Wohnungen GmbH and the household insecticides business.

The operating result from discontinuing operations consists of 47 million in operating profit from the Haarmann & Reimer group and the 933 million gain from its divestiture on September 30, 2002. The previous year's figure contained 333 million pertaining to EC Erdölchemie.

The total reported operating result decreased by 2.3 percent from 2001 to 1.6 billion.

In 2002 our selling expenses decreased 3.1 percent, while research and development expenses increased 1.4 percent. General administration expenses increased 22.9 percent mainly due to the reorganization of the Bayer Group.

### *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 2002 increased 24.6 percent over the previous year, mainly because of the additional interest expense associated with the financing of the Aventis CropScience acquisition and also as a consequence of securities write-downs. Income from investments in affiliated companies was sharply higher due to the sale of our interest in Agfa-Gevaert N.V.

### *Income Before Income Taxes*

Our income before taxes decreased by 14.3 percent from 2001 to 1.0 billion.

### *Income Taxes*

The lower operating result, tax-free income and deferred tax assets resulted in net tax income of 107 million. The effective tax rate calculated on taxable income was 37.5 percent.

**Table of Contents***Net Income*

Group net income rose by 9.8 percent to 1.1 billion.

**2001 compared with 2000***Net Sales*

Our net sales from continuing operations increased by 49 million in 2001, a growth of 0.2 percent. The primary internal factors that contributed to sales growth were portfolio changes and price increases. In 2001, portfolio changes accounted for 0.9 billion of the increase in net sales. This effect also included sales from businesses we acquired during the previous year, which therefore generated income for us during only part of 2000. Additionally, price increases accounted for approximately 0.3 billion of the increase in net sales. These positive developments were reduced by lower volumes of 1.2 billion. However, we did increase sales despite the many negative developments during 2001. We estimate that the withdrawal of Lipobay/ Baycol reduced our sales by approximately 0.7 billion. Including discontinuing operations, our net sales decreased 2.2 percent from 2000.

Sales in our Pharmaceuticals, Biological Products segment decreased 6.7 percent in 2001 to 5.7 billion. Sales in our Consumer Care, Diagnostics segment increased 5.6 percent to 4.1 billion. Sales in our Animal Health segment declined 1.7 percent to 858 million. Sales in our CropScience segment increased 9.9 percent, to 2.8 billion. Sales in our Plastics, Rubber segment decreased 4.0 percent to 5.6 billion. Sales in the Polyurethanes, Coatings, Fibers segment decreased 2.6 percent to 5.4 billion. Our Chemicals segment achieved sales of 3.7 billion, an increase of 9.9 percent. See *Segment Data*, below, for a more detailed discussion of the results of each of our business segments.

*Gross Profit*

Despite a sales increase of 0.2 percent, our gross profit from continuing operations decreased 9.1 percent in 2001. Cost of goods sold, which increased 8.3 percent, cut into our margins.

*Operating Result*

Our result from continuing operations in 2001 before exceptional items decreased by 1.4 billion, or 43.8 percent, from the previous year, to 1.8 billion. We attribute this decrease primarily to unfavorable world economic conditions generally, as well as to adverse factors affecting our Health Care businesses, primarily the withdrawal of Lipobay/ Baycol, which caused a decrease of 0.3 billion. After net exceptional charges of 0.6 billion, the decrease in operating result was 61.3 percent. We attribute two thirds of these exceptional items to our Health Care businesses, largely also to our withdrawal of Lipobay /Baycol, and spent most of the remainder on restructuring and site consolidation.

Our operating result of 0.4 billion from discontinuing operations comprised 73.0 million from Haarmann & Reimer and 333 million from EC Erdölchemie. The sale of our interest in EC Erdölchemie in April 2001 added 0.3 billion to our 17 million share of the joint venture's results prior to the sale. Combining continuing and discontinuing operations, our operating result for 2001 declined 51.0 percent to 1.6 billion.

In 2001 our selling expenses increased 4.8 percent, while research and development expenses increased 7.2 percent and general administration expenses increased 11.9 percent. The primary causes of these developments were the implementation of a strategic marketing organization at Pharma and a general increase of advertisement expenses for selling expenses; life-cycle management and increase of strategic R&D know-how in the United States for research and development expenses; and higher SAP expenses and additional expenses for new business and companies for general administration 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. Our other net operating expenses increased 12.4 percent, largely because of higher restructuring expenses and additional write-downs of receivables.



**Table of Contents***Non-Operating Result*

Our non-operating loss for 2001 increased 67.0 percent over the previous year, largely because our income (net) from investments in affiliated companies was lower. Our net interest expense rose from 311 million to 349 million. This increase reflected reduced interest income, rather than an increase in interest expense. Our net exchange gain of 49.0 million in 2001, compared with a net exchange loss of 21 million in the previous year, offset the effect of our increased net interest expense.

*Income Before Income Taxes*

Our income before taxes from continuing operations in 2001 decreased 74.4 percent from the previous year to 0.7 billion. Including discontinuing operations, the decrease in income was 62.7 percent.

*Income Taxes*

Our income tax expense decreased 86.6 percent during 2001, due to our lower earnings as well as to tax-free income. Our effective tax rate fell to 13.8 percent from the 2000 rate of 38.4 percent. With respect to our taxable income only, our effective tax rate during 2001 was 34.0 percent.

*Net Income*

After a net income from minority interests of 26 million in 2000, we reported a net loss of 4 million in 2001, reflecting lower earnings. After minority interests, our net income from continuing operations decreased 1.0 billion, or 63.6 percent, to 0.6 billion ( 0.82 per share) from 1.7 billion ( 2.26 per share) in 2000. Including discontinuing operations, our net income in 2001 decreased 46.9 percent.

**Segment Data***Pharmaceuticals, Biological Products*

|   | 2002                | Change from<br>Previous Year<br>(%) | 2001  | Change from<br>Previous Year<br>(%) | 2000  |
|---|---------------------|-------------------------------------|-------|-------------------------------------|-------|
|   | (euros in millions) |                                     |       |                                     |       |
| Net sales (external)                      | 4,767               | (16.8)                              | 5,729 | (6.7)                               | 6,140 |
| Intersegment sales                        | 33                  | (13.2)                              | 38    | (2.6)                               | 39    |
| Operating result before exceptional items | 151                 | (60.6)                              | 383   | (67.1)                              | 1,165 |
| Operating result                          | (188)               |                                     | 51    | (95.6)                              | 1,160 |

*2002 compared with 2001*

Sales in our Pharmaceuticals, Biological Products segment declined by 16.8 percent in 2002. Sales in the Pharmaceuticals business group decreased 22.9 percent, or 1.1 billion, to 3.7 billion. We attribute this development primarily to the withdrawal of the cholesterol-lowering drug Lipobay/ Baycol and to lower sales of the antibiotic Ciprobay/ Cipro, for which demand had been particularly high in the previous year due to its indication for anthrax. Also, sales of the antihypertensive Adalat were down, due to increased competition from generic products. The drivers behind the growth in Pharmaceuticals were the respiratory antibiotic Avalox/ Avelox and the cardiovascular drug Aspirin Cardio. Sales in the Biological Products business group expanded by 14.2 percent, or 134 million, to 1.1 billion. This was due primarily to significant growth in volumes for Kogenate, our recombinant Factor VIII clotting factor. Now that the production problems have been rectified and the FDA has approved an increase in Kogenate production, the foundation is laid for further growth.

The segment's operating result before exceptional items decreased to 151 million in 2002, a change of 60.6 percent from 2001. We attribute this development primarily to lower sales of Cipro and Adalat, and the market withdrawal of Lipobay/ Baycol.



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In 2002 we incurred exceptional charges of 414 million. More than half this amount represented provisions for expected payments under an agreement being negotiated with U.S. federal authorities. This agreement, which concerned an investigation into pharmaceutical product prices, has since been finalized. Our total payments under the agreement will not materially exceed the amount of these provisions. These exceptional charges were partially offset by exceptional income of 75 million from the divestiture of our holdings in several generic pharmaceutical companies.

*2001 compared with 2000*

Sales in our Pharmaceuticals, Biological Products segment decreased 6.7 percent in 2001. Sales in our Pharmaceuticals business group, which makes up the bulk of the segment, decreased 3.0 percent to 4.8 billion. Our withdrawal of Lipobay/ Baycol was the most significant factor in this decline. Sales in the smaller Biological Products business group declined 21.9 percent to 0.95 billion, reflecting a 24 million decline in sales volume for plasma products. Our Kogenate production problems were the primary cause of this decline. Disregarding the effect of the Lipobay/ Baycol withdrawal and the Kogenate production problems, Pharmaceuticals sales increased 2.1 percent, reflecting strong growth of in sales of Avelox. Demand for Cipro also increased during the fourth quarter of 2001, with worldwide sales up 10.0 percent for the year as a whole. We believe that a large portion of this increased demand resulted from Cipro's approval for the treatment of anthrax, which was used in bioterrorist attacks against the United States last year. Sales of Adalat declined 16.0 percent to 975 million due to generic competition.

The segment's operating result before exceptional items decreased to 383 million in 2001, a change of 67.1 percent from 2000. We attribute this development primarily to the problems with biological products and the market withdrawal of Lipobay/ Baycol. This event, together with the other exceptional items, led to net charges amounting to 332 million.

*Consumer Care, Diagnostics*

|   | 2002                | Change from<br>Previous Year<br>(%) | 2001  | Change from<br>Previous Year<br>(%) | 2000  |
|---|---------------------|-------------------------------------|-------|-------------------------------------|-------|
|   | (euros in millions) |                                     |       |                                     |       |
| Net sales (external)                      | 3,755               | (8.5)                               | 4,104 | 5.6                                 | 3,888 |
| Intersegment sales                        | 2                   | 0                                   | 2     |                                     | 0     |
| Operating result before exceptional items | 408                 | 5.2                                 | 388   | 24.8                                | 311   |
| Operating result                          | 601                 | 76.2                                | 341   | 92.7                                | 177   |

*2002 compared with 2001*

Sales in our Consumer Care, Diagnostics segment decreased by 8.5 percent. Currency depreciation in Latin America and inventory reductions by North American drug suppliers caused sales of the Consumer Care business group to recede by 18.1 percent, or 379 million, to 1.7 billion. Sales of the Diagnostics business group rose by 1.5 percent, or 30 million, to 2.0 billion, driven mainly by growth in laboratory diagnostic systems and nucleic acid diagnostics.

The segment's operating result before exceptional items increased to 408 million in 2002, a change of 5.2 percent from 2001. This increase is a result of improved business performance of Diagnostics in North America, as well costs saved through CURE, our internal restructuring program.

The net exceptional income of 193 million was primarily related to the sale of Consumer Care's Household business.

**Table of Contents***2001 compared with 2000*

Sales in our Consumer Care, Diagnostics segment increased 5.6 percent. Of this amount, 2.1 billion reflected sales in Consumer Care, an increase of 8.9 percent. We attribute this growth to the successful launch of a reformulated Alka-Seltzer Plus in North America and the continued growth in demand for Aleve Cold & Sinus. The Diagnostics business group achieved sales of 2.0 billion, up 2.2 percent from the previous year, primarily through growth in the business group's nucleic acid diagnostics activities.

In 2001 we continued the segment's cost-cutting efforts. Because Diagnostics operates primarily in the United States while a large proportion of its sales are outside the United States, the relatively high value of the U.S. dollar requires us to contain costs effectively. The segment's operating result before exceptional items increased to 388 million in 2001, a change of 24.8 percent from 2000. We attribute this development primarily to the recovery of the Alka-Seltzer-Plus net sales after we discontinued marketing Alka-Seltzer-Plus in 2000 and after its subsequent re-launch in the United States during 2001. We completed the re-launch of our reformulated products that formerly contained phenylpropanolamine during 2002. We incurred net exceptional charges of 47 million, compared to 134 million in 2000, which were primarily for restructuring measures partly also related to Alka-Seltzer-Plus.

*Animal Health*

|   | 2002 | Change from<br>Previous Year<br>(%) | 2001 | Change from<br>Previous Year<br>(%) | 2000 |
|---|------|-------------------------------------|------|-------------------------------------|------|
| (euros in millions)                       |      |                                     |      |                                     |      |
| Net sales (external)                      | 850  | (0.9)                               | 858  | (1.7)                               | 873  |
| Intersegment sales                        | 1    | (75.0)                              | 4    | (33.3)                              | 6    |
| Operating result before exceptional items | 180  | 11.8                                | 161  | 8.8                                 | 148  |
| Operating result                          | 169  | 5.0                                 | 161  | (6.9)                               | 173  |

*2002 compared with 2001*

Animal Health's sales, at 850 million, essentially matched sales from the previous year. While business was hampered by lower demand for the antiparasitic treatment Advantage and the economic crisis in Argentina, we successfully launched the new antiparasitic treatment Advantix in December 2002 in North America.

The operating result before exceptional items increased to 180 million in 2002, a change of 11.8 percent from 2001. The primary factors driving this positive development were a change in product mix and strict cost savings.

*2001 compared with 2000*

Animal Health's sales declined 1.7 percent. Most of this decrease resulted from the divestiture of our U.S. biological products business. The BSE crisis in Europe and Japan and the foot and mouth disease crisis in Europe and Latin America also had a negative impact on sales. Growth in sales of our Advantage parasiticide in North America and Japan helped mitigate the effect of these negative developments.

The segment's operating result before exceptional items increased to 161 million in 2001, a change of 8.8 percent from 2000. We attribute this development primarily to higher sales for Advantage.

**Table of Contents***CropScience*

|   | <b>2002</b>         | <b>Change from<br/>Previous Year<br/>(%)</b> | <b>2001</b> | <b>Change from<br/>Previous Year<br/>(%)</b> | <b>2000</b> |
|---|---------------------|--|-------------|--|-------------|
|   | (euros in millions) |  |             |  |             |
| Net sales (external)                      | 4,697               | 65.5   | 2,838       | 9.9  | 2,582       |
| Intersegment sales                        | 90                  | 11.8   | 102         | 5.2  | 97          |
| Operating result before exceptional items | (15)                |  | 464         | 13.2   | 410         |
| Operating result                          | (122)               |  | 464         | 12.9   | 411         |

*2002 compared with 2001*

The acquisition of Aventis CropScience (ACS) allowed CropScience to increase sales by 65.5 percent to 4.7 billion. Disregarding the ACS business, sales decreased by 4 percent, mainly because of the weak economy in Latin America and a weather-related demand reduction in North America, Australia and Asia.

The segment's operating result before exceptional items decreased to a loss of 15 million in 2002. This is attributable to additional depreciation and amortization of determined goodwill and revalued assets in purchase accounting following the ACS acquisition. Operating Result was also reduced by integration costs. The incurred net exceptional charges were 107 million. These charges were primarily for restructuring programs.

*2001 compared with 2000*

In 2001 CropScience's sales increased 9.9 percent. We attribute more than half this increase to our acquisitions of the Flint line of fungicides and the corn herbicide Mikado.

The segment's operating result before exceptional items increased to 464 million in 2001, a change of 13.2 percent from 2000. We attribute this development primarily to higher sales and an additional income stemming from a patent dispute with Syngenta.

*Plastics, Rubber*

|   | <b>2002</b>         | <b>Change from<br/>Previous Year<br/>(%)</b> | <b>2001</b> | <b>Change from<br/>Previous Year<br/>(%)</b> | <b>2000</b> |
|---|---------------------|--|-------------|--|-------------|
|   | (euros in millions) |  |             |  |             |
| Net sales (external)                      | 5,378               | (3.6)  | 5,581       | (4.0)  | 5,816       |
| Intersegment sales                        | 115                 | (0.9)  | 116         | (4.9)  | 122         |
| Operating result before exceptional items | 175                 | (39.2)                                       | 288         | (48.6)                                       | 560         |
| Operating result                          | 73                  | (69.3)                                       | 238         | (53.8)                                       | 515         |

*2002 compared with 2001*

In 2002 sales of our Plastics, Rubber segment decreased by 3.6 percent. Plastics with 2002 sales of 3.2 billion, and Rubber with sales of 2.1 billion. The decline in Plastics sales is mainly a result of price pressure in Asia and the change in exchange rates. Rubber declined due to business conditions in North America.

The segment's operating result before exceptional items decreased to 175 million in 2002, a change of 39.2 percent from 2001. We attribute this development primarily to a fall in prices, a decrease in volume in the Rubber business and idle plant expenses. We incurred exceptional charges of 102 million. These charges were primarily due to restructuring of our Butyl and Polybutadiene businesses.

*2001 compared with 2000*

Sales of our Plastics, Rubber segment declined 4.0 percent. Plastics, with 2001 sales of 3.4 billion, and Rubber, with sales of 2.2 billion, accounted for approximately equal proportions of this decrease. Plastics sales

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declined due to lower volumes in North America and price pressure in Europe and Asia. Rubber declined due to business conditions in North America and Asia.

The segment's operating result before exceptional items decreased to 288 million in 2001, a change of 48.6 percent from 2000. We attribute this development primarily to a fall in prices, a decrease in volume and idle plant expenses. We incurred net exceptional charges of 50 million. These charges were primarily for the restructuring of our Styrenics business.

**Polyurethanes, Coatings, Fibers**

|   | 2002                | Change from<br>Previous Year<br>(%) | 2001  | Change from<br>Previous Year<br>(%) | 2000  |
|---|---------------------|-------------------------------------|-------|-------------------------------------|-------|
|   | (euros in millions) |                                     |       |                                     |       |
| Net sales (external)                      | 5,397               | (0.8)                               | 5,439 | (2.6)                               | 5,582 |
| Intersegment sales                        | 78                  | (43.5)                              | 138   | (70.1)                              | 462   |
| Operating result before exceptional items | 243                 | 88.4                                | 129   | (77.6)                              | 577   |
| Operating result                          | (205)               |                                     | 9     | (98.3)                              | 524   |

*2002 compared with 2001*

In 2002 sales of the segment decreased by 0.8 percent. The Polyurethanes business group contributed 3.3 billion, an increase of 2.0 percent from the previous year, while Coatings and Colorants contributed 1.9 billion, down 3.6 percent from 2001 and the Fibers business 0.2 billion, down 13.8 percent.

The segment's operating result before exceptional items increased to 243 million in 2002, a change of 88.4 percent from 2001. We attribute this development primarily to increased volumes and the success of our restructuring programs. We incurred net exceptional charges of 448 million. These charges were primarily for restructuring programs in Polyether and Powder Coatings, as well as adjustments to carrying values of our Polyether and Fibers businesses.

*2001 compared with 2000*

Sales of our Polyurethanes, Coatings, Fibers segment decreased by 2.6 percent. The Polyurethanes business group contributed 3.2 billion, an increase of 2.0 percent from 2000, while Coatings and Colorants contributed 2.0 billion, up 3.5 percent, and the Fibers business 0.2 billion down 54.2 percent from the previous year. The decrease in Fibers is due to the sale of the Dralon business. Our acquisition of Lyondell helped mitigate the effects of increasingly stiff polyurethanes competition. Our acquisition of Sybron Chemicals enabled us to increase Coatings and Colorant sales despite below expectation sales performance in North America and, in the second half of the year, in Europe.

The segment's operating result before exceptional items decreased to 129 million in 2001, a change of 77.6 percent from 2000. We attribute this development primarily to price increases in raw materials and a decrease in volumes. We incurred net exceptional charges of 120 million. These charges were primarily for restructuring programs in the United States.

**Chemicals**

|   | 2002                | Change from<br>Previous Year<br>(%) | 2001  | Change from<br>Previous Year<br>(%) | 2000  |
|---|---------------------|-------------------------------------|-------|-------------------------------------|-------|
|   | (euros in millions) |                                     |       |                                     |       |
| Net sales (external)                      | 3,304               | (11.9)                              | 3,749 | 9.9                                 | 3,410 |
| Intersegment sales                        | 409                 | (10.3)                              | 456   | (2.1)                               | 466   |
| Operating result before exceptional items | 160                 | (41.0)                              | 271   | (26.8)                              | 370   |

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|                  |     |        |     |        |     |
|------------------|-----|--------|-----|--------|-----|
| Operating result | 134 | (34.0) | 203 | (48.5) | 394 |
|                  | 73  |        |     |        |     |

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### *2002 compared with 2001*

The chemicals segment is comprised of four business groups: Basic and Fine Chemicals, Specialty Products, H.C. Starck, and Wolff Walsrode.

The sales of the Basic and Fine Chemicals business group decreased 9.2 percent to 931 million. The falling prices for sodium hydroxide and lower sales in the life-science intermediates markets were the main reasons for that decline. The basic chemicals business unit took advantage of further consolidation in the market. The Specialty Products business group sustained a decline in sales to 1.4 billion, down 4.5 percent. This decline is attributable to unfavorable changes in the exchange rates and to the weak global economic situation. For the H.C. Starck business group the continuing weakness in demand in the electronics industry as well as significantly reduced prices led to a decline in sales of 25.2 percent to 607 million. Sales of the Wolff Walsrode business group decreased due to changes in the portfolio from 444 million to 363 million.

The operating result before exceptional items decreased 41 percent to 160 million. The most important factor affecting the operating result of the Chemicals segment was the weak profitability of H.C. Starck.

### *2001 compared with 2000*

The segment's 9.9 percent increase in sales during 2001 was chiefly the result of acquisitions in the business group Specialty Products. The Basic and Fine Chemicals business group increased sales 1.9 percent to 1.0 billion. We attribute this increase largely to the strong performance of the business group's Inorganic Basic Chemicals unit, as well as to increase in products synthesized for the agrochemical and pharmaceutical markets. Specialty Products achieved an increase in sales of 12.0 percent to 1.5 billion as the result of our acquisitions of Sybron Chemicals and the paper chemicals business of Cytec Industries. Our H.C. Starck business group increased sales 22.0 percent to 811 million. This increase was due to acquisitions, which offset a decline in sales to the electronics and optics industries caused by significant consolidation in the electronics market. Wolff Walsrode achieved a sales increase of 4.0 percent to 444 million. Wolff's growth in market share in the United States, Latin America and Eastern Europe, especially in the methylcellulose business, more than offset declines in western Europe.

The segment's operating result before exceptional items decreased 26.8 percent in 2001 to 271 million. We attribute this decrease to adverse cyclical effects and to write-downs of tantalum inventory at H.C. Starck. We incurred net exceptional charges of 68 million. These charges were primarily in connection with the sale of our interest in ChemDesign Corporation.

## **LIQUIDITY AND CAPITAL RESOURCES 2002, 2001 and 2000**

### **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; these activities represented our primary liquidity requirements during the years discussed below. We use cash in financing activities primarily to retire debt and pay dividends. At December 31, 2002, we had cash, cash equivalents and net working capital totaling 5.5 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.

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

|   | 2002    | Change from<br>Previous Year<br>(%) | 2001    | Change from<br>Previous Year<br>(%) | 2000    |
|---|---------|-------------------------------------|---------|-------------------------------------|---------|
| (euros in millions)                                 |         |                                     |         |                                     |         |
| Gross operating cash flow                           | 3,012   | 3.0                                 | 2,923   | (29.8)                              | 4,164   |
| <i>Thereof discontinuing operations</i>             | 77      | (27.4)                              | 106     | (56.6)                              | 244     |
| Changes in working capital                          | 1,408   | 50.4                                | 936     |                                     | (1,073) |
| Net cash provided by operating activities           | 4,420   | 14.5                                | 3,859   | 24.8                                | 3,091   |
| <i>Thereof discontinuing operations</i>             | 87      | (33.6)                              | 131     | (30.3)                              | 188     |
| Net cash provided by (used in) investing activities | (6,570) | 208.2                               | (2,132) | (65.6)                              | (6,189) |
| <i>Thereof discontinuing operations</i>             | 1,286   | 314.8                               | 310     |                                     | (268)   |
| Net cash provided by (used in) financing activities | 2,209   |                                     | (1,549) |                                     | 772     |
| <i>Thereof discontinuing operations</i>             | 1       | (98.7)                              | 77      |                                     | 11      |
| Change in cash and cash equivalents                 | 59      | (66.9)                              | 178     |                                     | (2,326) |
| Cash and cash equivalents at beginning of period    | 719     | 46.4                                | 491     | (82.5)                              | 2,812   |
| Change in scope of consolidation                    | 4       | (90.5)                              | 42      |                                     | (3)     |
| Exchange rate movements                             | (15)    |                                     | 8       |                                     | 8       |
| Cash and cash equivalents at end of year            | 767     | 6.7                                 | 719     | 46.4                                | 491     |
| Marketable securities and other instruments         | 29      | (44.2)                              | 52      | (75.6)                              | 213     |
| Liquid assets as per balance sheets                 | 796     | 3.2                                 | 771     | 9.5                                 | 704     |

**Cash from Operating Activities**

Cash from operating activities was 3.0 billion in 2002, 2.9 billion in 2001 and 4.2 billion in 2000. Gross cash decreased 3.0 percent. In 2000 the gross cash provided by operating activities decreased 29.8 percent from 2000, mainly due to lower operating results.

Due to a 1.4 billion reduction in working capital, net operating cash flow in 2002 increased to 4.4 billion or 14.5 percent. We achieved this improvement primarily through our project, begun in 2001, to reduce inventories and improve the collection of receivables.

**Investing activities**

Net cash used in investing activities amounted to 6.6 billion. Additions to property, plant and equipment and intangible assets in 2002 resulted in a cash outflow of 2.2 billion. Cash outflows for acquisitions, primarily that of Aventis CropScience, amounted to 7.8 billion. Sales of property, plant and equipment led to cash inflow of 2.2 billion, while the cash inflow from the sale of investments and from interest and dividend receipts, including marketable securities, amounted to 1.3 billion. The net cash outflow for investing activities amounted to 2.1 billion in 2001. Additions to property, plant and equipment and intangible assets resulted in a cash outflow of 2.6 billion. Cash outflow for acquisitions amounted to 0.5 billion. Sales of property, plant and equipment led to a cash inflow of 0.5 billion, while that from interest and dividend receipts and from marketable securities amounted to 0.5 billion. 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.

**Table of Contents****Financing Activities**

Net cash provided by financing activities came to 2.2 billion, with net borrowings amounting to 3.5 billion. Dividend and interest payments totaled 1.4 billion.

Financing activities led to a net cash outflow of 1.5 billion in 2001, which comprises mainly the 1.0 billion dividend payment for 2000 and 0.5 billion in interest payments. 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.

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. At December 31, 2002, we had approximately 6.2 billion of total lines of credit, of which 1.0 billion was used and 5.2 billion was unused and available for borrowing on an unsecured basis.

**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 2.4 billion in 2002 and to 2.6 billion in each of 2001 and 2000.

Our major capital expenditures since 2000 included:

| Year | Segment                                 | Description  |
|------|---|--|
| 2002 | Pharmaceuticals,<br>Biological Products | Construction of a sterile filling facility for Factor VIII, Berkeley, California                                       |
|      | Consumer Care,<br>Diagnostics           | Construction of a small volume facility with pilot plant for Aspirin production, Greppin, Germany                      |
|      | CropScience                             | Completion of a multi-purpose facility for crop protection products, Dormagen, Germany                                 |
|      | Plastics, Rubber                        | Modification of butyl rubber production, Zwijndrecht, Belgium and Sarnia, Canada                                       |
|      |   | Expansion of capacity for ABS plastics, Tarragona, Spain and Map Ta Phut, Thailand                                     |
|      |   | Expansion of polycarbonate capacity including precursors, Uerdingen, Germany   |
|      | Polyurethanes, Coatings,<br>Fibers      | Expansion of isocyanate capacity including precursors, Brunsbüttel, Dormagen and Uerdingen, Germany and Niihama, Japan |
|      | Chemicals                               | Expansion/ modification of electrolysis plants, Leverkusen, Germany  |
|      |   | Efficiency improvement in the integrated aromatics production network, Leverkusen, Germany                             |
| 2001 |   | Expansion of nitrocellulose production, Bomlitz, Germany   |
|      | Pharmaceuticals,<br>Biological Products | Construction of a facility for packaging and storage of biological products, Berkeley, California                      |
|      |   | Construction of research facility in West Haven, Connecticut, and Kyoto, Japan (completed 2001)                        |
|      | Consumer Care,<br>Diagnostics           | Expansion of solids plants, Bitterfeld, Germany and Lerma, Mexico  |

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| <b>Year</b> | <b>Segment</b>                       | <b>Description</b>  |
|-------------|--------------------------------------|---|
|             | CropScience                          | Construction of a multi-purpose facility for crop protection products, Dormagen, Germany<br>Protection products, Dormagen, Germany<br>Insecticides production facility, Dormagen, Germany   |
|             | Plastics, Rubber                     | Expansion of polycarbonate capacities (production of bisphenol A and Makrolon), Map Ta Phut, Thailand and Uerdingen, Germany<br>Expansion of films capacity, Dormagen, Germany<br>Construction of a melt polycarbonate facility, Antwerp, Belgium (completed 2001)<br>Construction of a rubber chemicals facility, Brunsbüttel, Germany (completed 2001)  |
|             | Polyurethanes, Coatings, Fibers      | Expansion of isocyanate capacities including precursors, Uerdingen and Brunsbüttel, Germany<br>Expansion of coating raw materials production, Leverkusen, Germany<br>Expansion of capacity for aqueous dispersions, Dormagen/ Germany (brought on stream 2001)<br>Expansion of dyestuff production for transparent Plastics, Leverkusen, Germany  |
|             | Chemicals                            | Construction of a coating raw materials facility, Caojing, China<br>Construction of a sulfuric acid facility, Leverkusen, Germany<br>Expansion/ modification of the electrolysis plant, Leverkusen, Germany<br>Construction of a polyaspartic acid facility, Leverkusen, Germany<br>Expansion of tantalum production, Goslar, Germany and Mito, Japan<br>Process technology center, Goslar, Germany (completed 2001)<br>Modernization and expansion of the nitrocellulose facility, Bomlitz, Germany<br>Expansion of the molybdenum facility, Laufenburg, Germany |
| 2000        | Pharmaceuticals, Biological Products | Construction of process development pilot plant, Wuppertal, Germany (completed 2000)  |
|             | Consumer Care, Diagnostics           | Expansion of solids plant, Bitterfeld, Germany  |
|             | CropScience                          | Fungicides production facility, Dormagen, Germany (completed 2000)<br>Expansion of solids formulation plant (parasiticides, insecticides, rodenticides), Belford Roxo, Brazil   |
|             | Plastics, Rubber                     | Expansion of polycarbonate capacities (Makrolon) and Bisphenol A), Map Ta Phut, Thailand<br>Construction of Therban facility, Leverkusen, Germany (completed 2000)  |
|             | Polyurethanes, Coatings, Fibers      | Facility for continuous production of long chain polyethers by our proprietary IMPACT process, Channelview, Texas<br>Expansion of coating raw materials production, Leverkusen, Germany   |
|             | Chemicals                            | Construction of sulfuric acid facility, Leverkusen, Germany<br>Expansion/ modification of electrolysis plant, Leverkusen, Germany<br>Construction of polyaspartic acid facility, Leverkusen, Germany<br>Expansion of tantalum production at H.C. Starck, Germany and Japan  |

**Table of Contents****Commitments*****Off Balance Sheet Arrangements***

Our unconsolidated entities are not considered special-purpose entities and do not constitute other off-balance sheet arrangements. However, under current US GAAP, we are evaluating unconsolidated entities in which we may have a variable interest. If consolidation should turn out to be necessary, it will take place in 2003.

***Contractual Obligations and Commercial Commitments***

The tables below summarize all of the Group's contractual and commercial obligations. The timing of payments for collaborative agreements assumes that milestones or other conditions are met.

| <b>Contractual Obligations</b>           | <b>Total</b>  | <b>1 year</b> | <b>2 years</b> | <b>3 years</b> | <b>4 years</b> | <b>5 years</b> | <b>After 5 years</b> |
|--|---------------|---------------|----------------|----------------|----------------|----------------|----------------------|
| Long-term Debt, including Capital Leases | 10,159        | 2,841         | 186            | 427            | 82             | 3,231          | 3,392                |
| Operating Leases                         | 619           | 191           | 140            | 85             | 61             | 49             | 93                   |
| Capital Expenditures                     | 286           | 286           |                |                |                |                |                      |
| <b>Total Contractual Obligations</b>     | <b>11,064</b> | <b>3,318</b>  | <b>326</b>     | <b>512</b>     | <b>143</b>     | <b>3,280</b>   | <b>3,485</b>         |

| <b>Other Commercial Commitments</b> | <b>Total</b> | <b>1 year</b> | <b>2 years</b> | <b>3 years</b> | <b>4 years</b> | <b>5 years</b> | <b>After 5 years</b> |
|-------------------------------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------------|
| Collaborative Agreements            | 570          | 208           | 153            | 89             | 74             | 36             | 10                   |

Payments for guarantees and endorsements of bills and of warranties of 245 million have been excluded from the other commercial commitments table above, as we do not expect to make any payments under these commercial commitments.

***Investments***

We spent a total of 2.4 billion for intangible assets, property, plant and equipment in 2002. As in recent years, the main focus of our capital spending was in our Polymers business.

***Other Commitments***

In 2002 our minimum non-discounted future lease payments relating to long-term lease and rental arrangements totaled 1.5 billion, compared with 1.7 billion in the previous year. Of this amount, 899 million represented future payments under financial leases (1.2 billion in 2001).

Our financial commitment for orders placed under purchase agreements relating to planned or ongoing capital expenditure projects totaled 286 million in 2002. We expect to pay the majority of this amount in 2003. In 2001 this figure was 354 million, and in 2001 446 million.

Under collective agreements on part-time work arrangements for certain older employees, we have to accept applications for such arrangements from a certain quota of the work force. Other financial obligations that may arise from such work arrangements in the future cannot be quantified, since the quota has already been exceeded.

In addition, we have entered into research agreements with a number of third parties. Under these agreements, we have agreed to fund various research projects or to assume other commitments. Our payments under these agreements are typically based on the achievement of certain milestones or the fulfillment of other specific conditions by our research partners. In 2002 the total amount of these commitments was

570 million. For 2001 the figure had been 732 million.

**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,

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commercial paper and other financial obligations. See the tables under *Contractual Obligations and Commercial Commitments*, above, for a summary of our current financial obligations. See also Note 30 to our consolidated financial statements.

### **Funding and Treasury Policies**

We are exposed to interest rate risk. 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 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 primarily use interest rate swaps to convert a portion of our fixed rate borrowings into, in effect, floating rate borrowings. Short-term interest rate hedging contracts (including interest and principal currency swaps) totaled a nominal amount of 0.5 billion in 2002, 2.0 billion in 2001 and 0.3 billion in 2000. In 2002 hedges maturing in more than one year represented a nominal amount 5.3 billion, in 2001 2.5 billion and in 2000 3.2 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. The effects of currency fluctuations have been negative in 2002, decreasing our sales by 1.4 billion compared to the positive effects of 0.1 billion in 2001 and 2.2 billion in 2000. This effect was mainly due to a decrease of the value of the U.S. dollar compared to the euro (the average relative value of one euro in 2002 was \$0.95, compared with average values of \$0.90 in 2001 and \$0.93 in 2000).

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, 2002, we had entered into forward foreign exchange contracts and currency swaps with a nominal value of 2.98 billion, compared to 2.75 billion in 2001 and 3.42 billion in 2000.

Our aggregate direct transaction risk from sales and purchases in foreign currencies before hedging was approximately 2.7 billion at December 31, 2002, consisting primarily of dollars (\$1.7 billion), Japanese yen (¥53 billion) and Brazilian real (R1.3 billion). 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*.

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

Inflation has not had a material effect on our operating results in recent years. Seasonality does not materially affect our business as a whole. However, several of our individual business lines are subject to seasonal effects. In addition, a number of our business groups are subject to cyclicity, either directly or because of the effect of cyclicity on their customers' businesses. See the descriptions of our various business segments in Item 4, *Information on the Company* for a discussion of those businesses subject to seasonal or cyclical effects.

**Table of Contents****RESEARCH AND DEVELOPMENT**

The following table sets forth our total research and development expenditures during the last three full years.

|                                       | 2002  | Change from<br>Previous<br>Year (%) | 2001  | Change from<br>Previous<br>Year (%) | 2000  |
|---------------------------------------|-------|-------------------------------------|-------|-------------------------------------|-------|
| Research and development expenditure: |       |                                     |       |                                     |       |
| Amount (in millions of euros)         | 2,577 | 0.7                                 | 2,559 | 6.9                                 | 2,393 |
| As a percentage of sales              | 8.7   |                                     | 8.5   |                                     | 7.7   |

We typically allocate the largest portion of our research and development expenses to our Health Care businesses, primarily in the Pharmaceuticals, Biological Products segment. In 2002, Pharmaceuticals, Biological Products accounted for 41.6 percent of our total research and development spending (2001: 48.5 percent; 2000: 45.8 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*. 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 annual report in accordance with IFRS. See Note 44 to our consolidated financial statements for a reconciliation of the significant differences between IFRS and U.S. GAAP.

**New Accounting Standards****IFRS**

The following new or revised accounting standards and interpretations were implemented in 2002:

|        |   |
|--------|---|
| SIC-27 | Evaluating the Substance of Transactions Involving the Legal Form of a Lease                    |
| SIC-28 | Business Combinations – Date of Exchange and Fair Value of Equity Instruments                   |
| SIC-29 | Disclosure – Service Concession Agreements  |
| SIC-30 | Reporting Currency – Translation from Measurement Currency to Presentation Currency             |
| SIC-31 | Revenue – Barter Transactions Involving Advertising Services                                    |
| SIC-32 | Intangible Assets – Web Site Costs  |
| SIC-33 | Consolidation and Equity Method – Potential Voting Rights and Allocation of Ownership Interests |

The adoption of these new interpretations did not have a material impact on our financial position or results of operation in 2002 or on the comparability of our 2002, 2001 and 2000 consolidated financial statements.

In 2003 a new International Accounting Standard, IAS 41 Agriculture, will be implemented. IAS 41 Agriculture prescribes the accounting treatment, financial statement presentation and disclosures related to agricultural activity. This standard stipulates, among other things, the accounting treatment for biological assets during the period of growth, degeneration, production and procreation, and for the initial measurement of agricultural produce at the point of harvest. It prescribes that biological assets be included at fair value less estimated point-of-sale costs, provided that fair value can be measured reliably. Agricultural produce harvested from such biological assets is also recognized at fair value at the point of harvest less estimated point-of-sale costs.



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***U.S. GAAP***

In June 2001 the Financial Accounting Standards Board (FASB) approved Statement of Financial Accounting Standards (SFAS) 143, *Accounting for Obligations Associated with the Retirement of Long-Lived Assets* (SFAS 143), which requires that the fair values of an obligation associated with the retirement of long-lived assets be recognized in the period in which such obligation is incurred if a reasonable estimate of fair value can be made. When the liability is recorded, we must capitalize the costs of the liability by increasing the carrying amount of the long-lived asset. Over the estimated life of the asset, the liability is accreted to its present value and the related capitalized charge is depreciated over the useful life of the asset. We are required to implement SFAS 143 with effect from January 1, 2003. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

SFAS 145, *Rescission of FASB Statements no. 4, 44 and 64, Amendment of FASB Statement no. 13 and Technical Corrections* was issued in April 2002. The statement updates, clarifies and simplifies existing accounting standards related to the presentation of gains and losses from certain extinguishments of debt, the accounting for certain intangible assets and the accounting for certain sale-leaseback transactions. Significant provisions of this statement applicable to Bayer are effective for our 2003 fiscal year. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

SFAS 146, *Accounting for Costs Associated with Exit or Disposal Activities* was issued in June 2002. SFAS 146, which rescinds Emerging Issues Task Force (EITF) Issue 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)*, requires a liability for costs associated with exit or disposal activities to be recognized and measured initially at fair value only when they are incurred rather than at the date of a commitment to an exit or disposal plan. SFAS 146 is to be applied prospectively to exit or disposal activities initiated after December 31, 2002. We will adopt this standard effective January 1, 2003. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

In November 2002 the FASB published FASB Interpretation no. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others* (FIN 45). FIN 45 expands on the accounting guidance of other SFASs by extending the disclosures to be made by a guarantor in its financial statements about its obligations under certain guarantees, and it requires the guarantor to recognize a liability for the fair value of an obligation assumed under a guarantee. The disclosure requirements are effective for financial years ending after December 15, 2002, and require disclosure of the nature of the guarantee, the maximum potential amount of future payments that the guarantor could be required to make under the guarantee, and the current amount of the liability, if any, for the guarantor's obligations under the guarantee. FIN 45's provisions for initial recognition and measurement should be applied prospectively to guarantees issued or modified after December 31, 2002. We will apply this standard beginning on January 1, 2003. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

In January 2003 the FASB published FASB Interpretation no. 46, *Consolidation of Variable Interest Entities* (FIN 46). FIN 46 addresses the consolidation of entities for which control is achieved through means other than through voting rights (such entities are designated *variable interest entities* or *VIE*) by clarifying the application of ARB No. 51, *Consolidated Financial Statements* to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The primary objective of this interpretation is to provide guidance on how to identify a VIE and to determine when a VIE's assets, liabilities, noncontrolling interests and result of operations need to be included in a company's consolidated financial statements. The measurement principles will apply to our 2003 financial statements, while the disclosure principles are effective immediately. While we are currently in the process of assessing the impact of the adoption of FIN 46, we do not believe it will have a material impact on our financial position, results of operations or cash flows.

In May 2003 the FASB published SFAS 150, *Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity*. SFAS 150 establishes standards for how an issuer classifies and

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measures certain financial instruments with characteristics of both liabilities and equity. This statement is effective for our 2003 fiscal year reporting. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

In May 2003 the FASB Emerging Issues Task Force published Issue 00-21, Revenue Arrangements with Multiple Deliverables (EITF 00-21). EITF 00-21 addresses certain aspects of the accounting by a vendor for revenue arrangements entered into for fiscal periods beginning after June 15, 2002. We do not believe the adoption of EITF 00-21 will have a material impact on our financial position, results of operations or cash flows.

In April 2003 the FASB issued SFAS No. 149 Amendment of Statement 133 on Derivative Instruments and Hedging Activities. This Statement amends and clarifies financial accounting and reporting for derivative instruments, including certain derivative instruments embedded in other contracts (collectively referred to as derivatives) and for hedging activities under SFAS no. 133, Accounting for Derivative Instruments and Hedging Activities. The Group is currently evaluating the impact of this change.

## **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 were irrevocably fixed; the official German mark/euro rate was DM 1.95583 per 1.00. Legacy currency banknotes and coins remained in circulation during an initial transition period. On January 1, 2002, new euro-denominated notes and coins entered circulation, and the legacy currencies were withdrawn from circulation. Euro notes and coins are now the sole legal tender in these countries.

## **Critical Accounting Policies**

Critical accounting policies are those that are both most important to the portrayal of the Group's financial position and results, and that require application of management's most difficult, subjective, or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. We are not aware of any reasonably possible events or circumstances that would result in different amounts being reported that would have a material effect on our results of operations or financial position.

Our significant accounting policies are outlined in the notes to the financial statements. While not all of these significant accounting policies require the Group to make difficult, subjective, or complex judgments, we believe that the following accounting policies could be considered critical.

### ***Intangible Assets and Property, Plant and Equipment***

Intangible assets, including goodwill, and property, plant and equipment, are amortized over their estimated useful lives. Useful lives are based on our estimates of the period that the assets will generate revenue.

Intangible assets and property, plant and equipment are tested for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Impairment testing requires management to compare the carrying value of the assets to the expected discounted future cash flows from the related assets. Determining the expected discounted future cash flows involves significant estimations, including future sales prices and sales volumes, costs, and risk-adjusted discount rates.

Although we believe that our estimates of useful lives and estimations of discounted future cash flows are appropriate, changes in assumptions or circumstances could impact our future reported results.

### ***Environmental Provisions***

Our compliance with environmental laws and regulations may require us to remove or mitigate the effects of the disposal or release of chemical substances in jurisdictions where we do business or maintain properties. The cost of such compliance is provided for when it is probable and can be reasonably estimated. Provision amounts



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are estimated based on currently available facts, remediation strategies, regulations, our relative share of the total remediation costs, and discount rate. Changes in these assumptions could impact our future reported results.

### ***Litigation Provisions***

As more fully described in Note 44 to the financial statements, we are 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.

Litigation 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, we may incur charges in excess of presently established provisions and related insurance coverage. It is possible that our results of operations and cash flows could be materially affected by an ultimate unfavorable outcome of certain pending litigation.

### ***Income Taxes***

We are required to make estimates in determining our provision for income taxes and our deferred tax assets and liabilities. Additional estimates are made to determine whether valuation allowances are required against deferred tax assets. Such valuation allowances are recognized when it is not sufficiently certain that the assets will be realized. Uncertainties exist in respect of interpretation of complex tax regulations and the amount and timing of future taxable income. Differences between actual results and our assumptions, or changes in our assumptions in future periods, could result in adjustments to tax expense in future periods.

### ***Use of Estimates***

The preparation of all financial statements includes the use of estimates and assumptions that affect a number of amounts included in our financial statements, including employee benefit costs and related disclosures, inventory valuations, sales allowances, income taxes and contingencies. We base our estimates on historical experience and other assumptions that we believe are reasonable. If actual amounts are ultimately different from estimates, revisions are included in our results of operations for the period in which the actual amounts become known. Historically, the aggregate differences, if any, between our estimates and actual amounts in any year have not had a significant impact on our consolidated financial statements.

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### **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 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, on profitability and on the current business of Bayer AG, as well as on any exceptional matters that 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.

Individual Board members serve as representatives with primary responsibility for our various corporate segments and as representatives for the various geographic regions in which we operate.

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The following table shows the members of our current Board of Management, their ages, positions and the years in which their current terms expire.

| Name and Age <sup>(1)</sup> | Position | Current term expires |
|-----------------------------|----------|----------------------|
| Werner Wenning (56)         | Chairman | 2007                 |
| Dr. Udo Oels (59)           | Member   | 2006                 |
| Klaus Kühn (51)             | Member   | 2007                 |
| Dr. Richard Pott (49)       | Member   | 2007                 |

(1) Attila Molnar and Frank Morich left the Board of Management on June 30, 2002. Werner Spinner resigned from the Board of Management effective February 28, 2003.

*Werner Wenning* became chairman of our Board of Management in April 2002. He has served on the Board since 1997. Prior to becoming chairman, he served as chief financial officer and was a member of the Corporate Coordination and Human Resources Committees. 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 supervisory boards of Gerling-Konzern Versicherungs-Beteiligungs AG and Henkel KGaA.

*Dr. Udo Oels* joined the Board of Management in 1996 and currently is responsible for the corporate functions innovation, technology and environment. He is the representative for the Asia region.

*Klaus Kühn* is Bayer's chief financial officer. Prior to joining the Board in May 2002, Mr. Kühn was head of Bayer's Finance Division. Prior to that appointment, he oversaw the spin-off of Bayer's former Agfa division. Before joining Bayer in 1998, Mr. Kühn worked with Schering AG, most recently as head of finance. He is also the vice president of the Deutsches Aktieninstitut e.V.

*Dr. Richard Pott* joined the Board in May 2002. He had previously served as General Manager of our Specialty Products business group. Before assuming responsibility for Specialty Products, he served Bayer in a number of positions, most recently as head of the Strategic Planning Department and then as head of Corporate Planning and Controlling. Dr. Pott oversees strategy and human resources and serves as *Arbeitsdirektor*.

**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 oversees our business policy, corporate planning and strategy. It also approves the annual budget and the financial statements of Bayer AG and of the Bayer Group. 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 above a specified threshold, including:

the acquisition or disposition of investments;

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 ten members of the Supervisory Board at the annual meeting of shareholders. Pursuant to the Co-Determination Act of 1976, our employees elect the remaining ten 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. However, in accordance



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with the German Corporate Governance Codex, Board members are encouraged to retire at the Annual Shareholders Meeting during the year in which they reach the age of 72.

Any member elected by the shareholders at 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 employees. Unless otherwise 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 in which the chairman of the Supervisory Board is entitled to one additional 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.

All of the current shareholder representatives on the Supervisory Board were elected by the shareholders at the annual meeting of shareholders held on April 26, 2002, with the exception of Dr. Jürgen Weber, who was elected on April 25, 2003.

The following table shows the current members of our Supervisory Board, their principal occupations and the year in which they were first elected or appointed. Employee representatives are identified by an asterisk.

| <b>Name<sup>(1)</sup></b>    | <b>Position</b> | <b>Principal occupation</b>   | <b>First elected</b> |
|------------------------------|-----------------|---|----------------------|
| Dr. Manfred Schneider        | Chairman        | Former chairman of the management board, Bayer AG                               | 2002                 |
| *Erhard Gipperich            | Vice Chairman   | Lathe operator  | 1998                 |
| Dr. Paul Achleitner          | Member          | Member of the management board, Allianz AG                                      | 2002                 |
| Dr. Josef Ackermann          | Member          | Chairman of the management board, Deutsche Bank AG                              | 2002                 |
| *Karl-Josef Ellrich          | Member          | Chairman of the Works Council, Dormagen Site                                    | 2000                 |
| Prof. Dr. Hans-Olaf Henkel   | Member          | President of the Leibniz Association  | 2002                 |
| *Thomas Hellmuth             | Member          | Agricultural Engineer   | 2002                 |
| Dr. h.c. Martin Kohlhaussen  | Member          | Chairman of the supervisory board, Commerzbank AG                               | 1992                 |
| John Christian Kornblum      | Member          | Chairman of Lazard & Co.  | 2002                 |
| *Petra Kronen                | Member          | Chairman of the Works Council   | 2000                 |
| Dr. Heinrich von Pierer      | Member          | President and Chief Executive Officer of Siemens AG                             | 1993                 |
| *Wolfgang Schenk             | Member          | Engineer  | 2002                 |
| *Hubertus Schmoldt           | Member          | Chairman of German Mine, Chemical and Power Workers Union                       | 1995                 |
| *Dieter Schulte              | Member          | Former Chairman of German Unions Federation                                     | 1997                 |
| *Dr. h.c. Jürgen Weber       | Member          | Chairman of the Supervisory Board Deutsche Lufthansa AG                         | 2003                 |
| *Siegfried Wendlandt         | Member          | North Rhine District Secretary of German Mine, Chemical and Power Workers Union | 2001                 |
| *Reinhard Wendt              | Member          | Printer   | 2002                 |
| *Thomas de Win               | Member          | Commercial Clerk  | 2002                 |
| Prof. Dr. Ernst-L. Winnacker | Member          | University Professor, Bonn  | 1997                 |
| Dr. Hermann Wunderlich       | Member          | Former Vice Chairman of management board  | 1996                 |

(1) Petra Brayer, Hilmar Kopper, Dr. Ing. Manfred Lennings, Dr. h.c. Andre Leysen, Dr. h.c. Helmut Oswald Maucher, Rolf Nietzard, Waltrud Schlaelke, Hermann Josef Strenger and Dr. Eugen Velker left the



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Supervisory Board on April 26, 2002. Karl-Heinz Huchthausen left the Supervisory Board on October 1, 2002. Dr. Wolfgang Reitzle resigned from the Supervisory Board effective April 25, 2003.

### ***Supervisory Board Committees***

Currently, the Supervisory Board has the following committees:

The Presidium was established pursuant to § 27 (3) of the Co-Determination Act and consists of the chairman and vice chairman of the Supervisory Board, as well as of one shareholder representative and one employee representative. It serves as our nomination committee (*Vermittlungsausschuss*). 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. Pursuant to § 9 (2) of the Standard Operating Procedures (*Geschäftsordnung*) of the Supervisory Board, the Presidium also prepares the general meetings of the full Supervisory Board. The current members of the nomination committee are Mr. Schneider (chairman), Mr. Gipperich, Mr. von Pierer and Mr. Schmoldt.

The personnel committee (*Personalausschuss*) was established pursuant to § 10 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. Schneider (chairman), Mr. Kohlhaussen, Mr. Ellrich and Ms. Kronen.

The audit committee (*Prüfungsausschuss*) was established pursuant to § 11 of the Standard Operating Procedures of the Supervisory Board. The audit committee consists of six members of the Supervisory Board. The chairman of the Supervisory Board acts as chairman of the audit committee. The main responsibilities of the audit committee are oversight of financial accounting, risk management, the preparation of the resolutions of the Supervisory Board with respect to the annual financial statements, the review of all non-audit services to be performed by the independent auditor, oversight over the independent auditors including scope of services, fees and schedules, the direct receipt of the audit reports, and the direct receipt of reports of accounting irregularities. The current members of the audit committee are Mr. Schneider (chairman), Mr. Henkel, Mr. Kohlhaussen, Mr. Schenk, Mr. Wendlandt and Mr. de Win.

### **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 beneficially owns shares of Bayer AG totaling one percent or more of all outstanding shares.

### **Compensation**

The members of our Board of Management receive a fixed salary and a variable bonus. The variable bonus for a given year is tied to the amount of Bayer AG's dividend for that year. In addition, the members of our Board of Management may participate in a cash-settlement-based stock option program, provided that they place shares of their own into a special deposit account. In 2002 we paid salary and bonus compensation totaling 5,700,737 (2001: 8,153,562) to the members of our Board of Management. Of this amount, 4,426,757 was paid to members who were active on the Board as of December 31, 2002. With respect to their periods of active membership an additional 1,273,980 was paid to members of the Board who resigned or whose terms expired

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during 2002. Of the amount paid to members who were active on the Board as of December 31, 2002, 1,988,291 represented base salary and fixed bonus and 2,324,111 represented variable bonus. The Board members who were active as of December 31, 2002 also received remuneration in kind totaling 114,355 and consisting mainly of amounts such as the value assigned to the use of a company car for taxation purposes.

Emoluments to retired members of the Board of Management and their surviving dependents amounted to 14,383,353 (2001: 8,355,270). We pay former and retired members of the Board of Management a monthly pension equal to 80 percent of the last monthly base salary received while in service. These amounts are in addition to any amounts they receive as a result of their participation in the Bayer pension plan described below. See *Employee Pension Plan*. If we increase the base salary of current members of the Board of Management, we adjust the pension payments to retired members accordingly.

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. From the 2002 tranche of the Stock Option Program, the members of the Board of Management received a total of 476 option rights on the basis of their own investments. These rights are initially blocked for three years. During the subsequent two-year exercise period, the option rights entitle the participants to receive a maximum of 47,600 shares in total. See below, *Employee Option Plans Stock Option Program*.

The following table shows the remuneration paid to those individual members of our Board of Management who were active on the Board as of December 31, 2002.

***Remuneration of the Members of the Board of Management***

|                  | <b>Period</b>  | <b>Fixed Salary</b> | <b>Variable bonus</b> | <b>Total</b> | <b>Stock option rights (2002 tranche)</b> |
|------------------|----------------|---------------------|-----------------------|--------------|---|
| Klaus Kühn       | May-Dec. 2002  | 271,550             | 320,332               | 591,882      | 119                                       |
| Dr. Udo Oels     | Jan.-Dec. 2002 | 414,079             | 480,498               | 894,577      | 119                                       |
| Dr. Richard Pott | May-Dec. 2002  | 271,832             | 320,332               | 592,164      | 0   |
| Werner Spinner   | Jan.-Dec. 2002 | 408,513             | 480,498               | 889,011      | 119                                       |
| Werner Wenning   | Jan.-Dec. 2002 | 622,317             | 722,451               | 1,344,768    | 119                                       |

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The following table shows the remuneration paid to individual members of the Supervisory Board who were active on the Board as of December 31, 2002.

*Remuneration of the Members of the Supervisory Board*

|                                      | <u>Basic<br/>remuneration</u> | <u>Variable<br/>remuneration</u> | <u>Totals</u> |
|--------------------------------------|-------------------------------|----------------------------------|---------------|
| Dr. Paul Achleitner                  | 3,389                         | 35,583                           | 38,972        |
| Dr. Josef Ackermann                  | 3,389                         | 35,583                           | 38,972        |
| Karl-Josef Ellrich                   | 5,000                         | 52,500                           | 57,500        |
| Erhard Gipperich                     | 7,500                         | 78,750                           | 86,250        |
| Thomas Hellmuth                      | 1,236                         | 12,979                           | 14,215        |
| Prof. Dr.-Ing. e.h. Hans-Olaf Henkel | 3,389                         | 35,583                           | 38,972        |
| Dr. h.c. Martin Kohlhaussen          | 5,000                         | 52,500                           | 57,500        |
| John Christian Kornblum              | 3,389                         | 35,583                           | 38,972        |
| Petra Kronen                         | 5,000                         | 52,500                           | 57,500        |
| Dr. Heinrich von Pierer              | 5,000                         | 52,500                           | 57,500        |
| Dr. Wolfgang Reitzle                 | 3,389                         | 35,583                           | 38,972        |
| Wolfgang Schenk                      | 3,389                         | 35,583                           | 38,972        |
| Hubertus Schmoldt                    | 5,000                         | 52,500                           | 57,500        |
| Dr. Manfred Schneider                | 10,167                        | 106,750                          | 116,917       |
| Dieter Schulte                       | 5,000                         | 52,500                           | 57,500        |
| Siegfried Wendlandt                  | 5,000                         | 52,500                           | 57,500        |
| Reinhard Wendt                       | 3,389                         | 35,583                           | 38,972        |
| Thomas de Win                        | 3,389                         | 35,583                           | 38,972        |
| Prof. Dr. Ernst-Ludwig Winnacker     | 5,000                         | 52,500                           | 57,500        |
| Dr. Hermann Wunderlich               | 5,000                         | 52,500                           | 57,500        |

There were no loans to members of the Board of Management or to members of the Supervisory Board outstanding as of December 31, 2002.

*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 present value of the compensation they would have received through the normal expiration date of their employment contracts, discounted by 25 percent for a duration of more than three years. In addition, they would receive a severance payment equal to the sum of two to four years' annual compensation. 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 retains full pension rights.

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### *Employee option plans*

In May 2000 we implemented a three-tier program to provide employees and management with 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.

We may implement our employee option programs in annual tranches. Each tranche has separate terms, holding periods and other key parameters as described below, in each case keyed to the starting date of that tranche.

### *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-year holding period. 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.

We apply three criteria to determine whether the participant is eligible to exercise option rights granted in any given tranche and, if so, the number of shares received upon exercise. Two of these criteria measure the absolute and 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 starting date of the tranche, 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(SM) performance index since the starting date of the tranche, 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 over that tranche's holding period with the average growth in cash value for the Bayer Group as a whole during the three years prior to the starting date of the tranche. The result of this calculation is a factor between zero and two. This factor was set to one for the tranche of the program issued in 2002 because of the implementation and impact of the new holding structure.

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.

In 2002 participants in our stock option program received a total of 1,211 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 the three performance criteria described above, a maximum of 121,100 shares.

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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. In any given annual tranche, a participant may deposit Shares with a maximum aggregate value of half of 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 start of the tranche 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 tranche, but any deposited shares they sell are no longer counted in calculating the number of incentive shares for subsequent distribution dates. In the 2002 fiscal year, participants were allowed to deposit shares in a maximum aggregate value equal to their performance-related bonus for the 2000 fiscal year, if the bonus for 2000 was higher than that for 2001.

Each tranche of 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:

| <b>Distribution date at end of</b> | <b>Incentive shares received<br/>(per 10 deposited shares)</b> |
|------------------------------------|--|
| 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 starting date of the tranche.

Based on the number of Bayer AG shares that participants in the stock incentive program deposited in the tranche for 2002, participants are eligible to receive a total of 71,310 shares on the tranche's 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 tranche.

*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 tranche; any shares they sell are no longer counted in calculating the number of bonus shares on subsequent distribution dates for that tranche. Participants may deposit shares in a total value equal to half their performance-related bonus for the previous year. In the 2002 fiscal year, junior management participants were allowed to deposit shares in a maximum aggregate value equal to their performance-related bonus for the 2000 fiscal year, if the bonus for 2000 was higher than that for 2001.

Each tranche of 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

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program, Module 1 does not impose a share performance criterion. The participant receives incentive shares as follows on the distribution dates:

| Distribution date at end of | Incentive shares received<br>(per 10 deposited shares) |
|-----------------------------|--|
| 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 in the tranche for 2002, participants are eligible to receive a total of 258,760 shares on the future distribution dates, assuming that these participants do not remove any shares from deposit during the term of the tranche.

In addition, under Module 2 each participant may purchase 10 Bayer AG shares per year at a tax-free discount of 15.40 per share under the then market price. 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 2002, 2001 and 2000 by area of primary activity and an approximate breakdown of employees as of December 31, 2002, 2001 and 2000 by geographical region:

|                | <i>Employees by Activity</i> |         |         | <i>Breakdown by Region</i>           |        |        |        |
|----------------|------------------------------|---------|---------|--------------------------------------|--------|--------|--------|
|                | Average for                  |         |         | As of December 31,                   |        |        |        |
|                | 2002                         | 2001    | 2000    | 2002                                 | 2001   | 2000   |        |
| Technology     | 66,051                       | 61,055  | 59,356  | Europe                               | 70,100 | 65,400 | 65,800 |
| Marketing      | 35,985                       | 33,875  | 33,186  | North America                        | 24,600 | 23,400 | 23,100 |
| Administration | 10,035                       | 9,091   | 9,567   | Asia/Pacific                         | 15,400 | 12,600 | 11,100 |
|                |                              |         |         | Latin America/<br>Africa/Middle East | 12,000 | 11,000 | 11,500 |
| Research       | 12,521                       | 11,206  | 11,520  | Corporate                            | 500    | 600    | 600    |
| Total          | 124,592                      | 115,227 | 113,629 |                                      |        |        |        |

**Labor Relations**

The union-organized employees at our German facilities belong to several unions, the most important of which is IG BCE, the German Mining, Chemical and Energy Industrial Union. We do not negotiate collective bargaining agreements with these unions to cover our employees. Instead, in accordance with German practice, unions negotiate agreements with industry-wide employers' associations, in our case the German Chemical Industry Association.

In Germany employers and unions generally negotiate collective bargaining agreements annually. The current agreement that covers our employees has a term of 13 months, beginning April 2003. It grants employees a lump-sum payment of 40 in the first month of the agreement and a subsequent 2.6 percent pay increase over the life of the agreement. A German collective bargaining agreement governs the employment of all employees of the categories organized in the relevant union. At Bayer, we do not differentiate between individual employees who are union members and those who are not.

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 contract levels.

Each Bayer facility in Germany has a works council (*Betriebsrat*), elected by all non-management employees. Members serve a four-year term; the last elections took place in March 2002. The works councils



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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 (namely, beginning and end of daily working hours);

vacation guidelines;

social services (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.

With effect from January 1, 2001 we entered into an agreement (*Standortsicherungsvereinbarung*) with our joint works council to further job stability at several of our most important German sites. 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 over-capacity, 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 (up to the threshold for the statutory pension insurance, which for 2002 is 4,500 per month or 54,000 per year) 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*) by up to 44,500 are entitled to receive an additional monthly pension payment from an additional pension plan (*Zusatzrente*), which is financed by book reserves in the balance sheet. Employees whose annual earnings exceed the total of 54,000 plus 44,500 may become eligible for an individual pension promise. Bayer AG finances these individual pension entitlements also through book reserves.



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### **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 AG, has informed the SEC that it holds 6.18 percent of Bayer AG's outstanding shares. No other shareholder has notified us that it has crossed any of the Securities Trading Act's 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 of 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 annual report, 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 (except at arm's length conditions in the ordinary course of business);

enterprises in which we have significant influence or which have significant influence over us (except at arm's length conditions in the ordinary course of business);

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.



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### **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 and have been 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 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.



**Table of Contents***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. In addition, as of June 9, 2003, Barr began selling ciprofloxacin hydrochloride tablets in the United States using licensed product purchased from Bayer. These purchases are being made pursuant to a separate obligation of Bayer under the settlement agreement to supply such product to Barr during the six month period immediately preceding the December 2003 expiration of the patent protecting the sale of Cipro in the United States. Bayer further intends to seek pediatric exclusivity for Cipro, which, if granted by the FDA, could delay the introduction of generic versions of ciprofloxacin for six months beyond expiration of the patent. If Bayer is successful, we expect that the agreement term will be extended to include the additional six-month pediatric exclusivity period. Shortly after settling this suit, we applied to the U.S. Patent and Trademark Office for a re-examination of our patent. The Patent and Trademark Office reissued the patent in February 1999. See below, *Antitrust actions*.

After the settlement with Barr, a series of generics manufacturers filed ANDA (IV)s seeking regulatory approval of generic versions of ciprofloxacin. We filed patent infringement suits against these manufacturers, all of whom challenged the validity of our patent covering the sales of Cipro. During 2002 all patent infringement actions then still pending were concluded by final judgments in our favor.

*Antitrust actions.* Since July 2000 Bayer Corporation has been named as a defendant in 39 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 a defendant in 20 of those cases, including the individual lawsuit and the consumer protection group lawsuit; however, to date it has only 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 a 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 settlement violates various federal antitrust and state business, antitrust, unfair trade practices, and consumer protection statutes, and seek treble damages and injunctive relief.

None of the relevant courts in any of the putative class action lawsuits have certified a class. The Judicial Panel for Multidistrict Litigation (or MDL Panel) transferred 35 of these cases to the U.S. District Court for the Eastern District of New York for coordinated pre-trial proceedings. The district court later remanded nine of those cases to various state courts.

On January 25, 2002, Bayer filed a motion to dismiss all of the cases pending in the District Court for the Eastern District of New York, and the plaintiffs filed motions for partial summary judgment that the conduct alleged in the complaints constitutes an agreement that is unlawful on its face. On May 20, 2003, the district court denied the plaintiffs' motions for partial summary judgment, concluding that the alleged conduct was not per se anticompetitive under U.S. antitrust laws. The district court also denied Bayer's motion to dismiss, except as to the consumer protection group lawsuit, which the court held to be time-barred under the applicable statute of limitations.

Nine cases have been consolidated and are currently pending in a California state court. The California state court denied Bayer's demurrer, and Bayer answered plaintiffs' claims on December 23, 2002. Bayer is also involved in state court proceedings in Florida, New York, Kansas, Tennessee and Wisconsin. Bayer has answered plaintiffs' claims in the Florida case and filed motions to dismiss in the other four jurisdictions.

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The Barr settlement is also the subject of an ongoing antitrust investigation by the U.S. Federal Trade Commission and a number of state attorneys general.

Because these cases, which may involve joint and several liability among the defendants, 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 materially adverse 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. Additionally, due to the considerable uncertainty associated with these proceedings, it is currently not possible to accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

### *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. We have concluded these cases related to nifedipine with all of the defendants, with the exception of the Biovail and Teva cases described in the following two paragraphs.

Bayer AG and Bayer Corporation filed four ANDA (IV) patent infringement suits against Biovail Laboratories and Biovail Corporation in the U.S. District Court for the District of Puerto Rico. Two of these suits relate to Biovail ANDAs directed to 30mg and 60mg dosage strengths of nifedipine extended release tablets assertedly bioequivalent to Pfizer's 30mg and 60mg Procardia XL. The other two ANDA lawsuits relate to Biovail's 30mg and 60mg dosage strength tablets assertedly bioequivalent to Bayer's 30mg and 60mg Adalat CC drug products.

In addition, Bayer and Pfizer filed a suit against Biovail and Teva Pharmaceuticals U.S.A., Inc. asserting that Teva's commercial sales of Biovail's 60mg tablet asserted to be bioequivalent to Pfizer's 60mg Procardia XL drug product infringed Bayer's related U.S. patent. Bayer also filed suit against Biovail and Teva asserting that Teva's commercial sales of Biovail's 60mg tablet asserted to be bioequivalent to Bayer's 60mg Adalat CC drug product infringed Bayer's patent. All of these lawsuits are currently proceeding on the limited question of claim construction.

*Antitrust actions.* Biovail filed an antitrust lawsuit against Bayer AG, Bayer Corporation and Pfizer in the U.S. District Court for the District of Western Pennsylvania in April 1998. Biovail was seeking a declaratory judgment that Bayer's nifedipine patents are invalid. Biovail was also seeking damages under federal and state antitrust statutes alleging, among other things, that Bayer illegally asserted its patent rights. The district court stayed this litigation pending resolution of the nifedipine-related patent infringement actions against Biovail.

### *Vardenafil-related actions*

In October 2002 Pfizer, Inc. filed a declaratory judgment action against Bayer AG and Bayer Corporation in the U. S. District Court for the District of Delaware claiming that the expected sale of Levitra, Bayer's product for the treatment of erectile dysfunction, will infringe upon Pfizer's U.S. patent relating to products for the treatment of erectile dysfunction. Levitra has not yet been approved in the United States by the Food and Drug Administration. The action seeks a permanent injunction to prevent Bayer AG and Bayer Corporation from selling Levitra in the United States. If Levitra is approved and launched in the United States, Pfizer may make a motion for a preliminary injunction to prevent sales of Levitra. Bayer AG and Bayer Corporation are coordinating their defense with SmithKline Beecham Corporation (a GlaxoSmithKline company), Bayer's co-promotion partner in the United States and other countries and a co-defendant in this suit. In some other countries, the local Pfizer affiliate has initiated similar proceedings to prevent the marketing of Levitra. We believe that we have meritorious defenses in these actions and intend to defend them vigorously.

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***Aventis Behring action***

Nattermann & Cie GmbH and Aventis Behring LLC filed a suit on April 11, 2003 against Bayer Corporation and Bayer Healthcare LLC in the U. S. District Court for the Eastern District of Pennsylvania alleging that Bayer's Kogenate FS composition containing recombinant Factor VIII, which is used to treat hemophilia, infringes upon the U.S. patent owned by either Nattermann & Cie or Aventis Behring. Bayer counterclaimed, seeking *inter alia* a declaration of patent invalidity and non-infringement, and asserting that Bayer's use of the patented process is pursuant to an implied license. The proceedings are at an early stage. We believe that we have meritorious defenses in these actions and intend to defend them 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. Seven 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. 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.

In June 2003 a U.S. law firm filed a putative class action against Bayer Corporation and other manufacturers on behalf of non-U.S. residents claiming compensation for HIV/HCV infections allegedly acquired through blood plasma products manufactured in the U.S. This case is at an early stage. Although we have not yet responded to the complaint in this action, we believe that we have meritorious defenses to this action and intend to defend it vigorously.

*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. In the United States, we co-promoted this product with SmithKline Beecham Corporation pursuant to an agreement dated July 21, 1997. As of June 26, 2003, approximately 9,400 lawsuits are pending in both federal and state courts, including 158 putative class actions. The actions in the United States have been based 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. District Court for the District of Minnesota for coordinated discovery and other pre-trial proceedings. A motion for certification of nationwide personal injury, medical monitoring and economic refund classes is awaiting decision by this court. On June 16, 2002, the Oklahoma District Court of Pottawatomie County certified a class of all Oklahoma residents who took cerivastatin and sustained muscular/skeletal injuries as a result. Bayer appealed this ruling to the Oklahoma Court of Appeals, which affirmed the lower court's class certification ruling on June 20, 2003. We believe that we have meritorious defenses against class certification and intend to seek further appellate review of this ruling. The certification of a class, if such a decision is upheld, is unrelated to a determination of our liability. In addition, several actions have been initiated against other companies of the Bayer Group in other countries, including class actions in Canada. We expect additional lawsuits to be filed in the United States and elsewhere. On March 18, 2003, a jury in an action brought

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against us in state court in Corpus Christi, Texas delivered a verdict in our favor. On April 3, 2003, a jury in an action brought against us in a state court in Hinds County, Mississippi also delivered a verdict in our favor.

In the event that plaintiffs substantially prevail, despite existing defense arguments, it is possible that Bayer could incur charges in excess of our insurance coverage. Due to the considerable uncertainty associated with these proceedings, it is currently not possible to more accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results. Without acknowledging any liability, we have settled over 1,000 cases as of June 26, 2003, resulting in settlement payments of approximately \$343 million. Bayer will continue to offer fair compensation to people who experienced serious side effects while taking cerivastatin on a voluntary basis and without concession of liability. In cases where an examination of the facts indicates that Baycol played no part in the patient's medical situation, or where a settlement is not achieved, Bayer will continue to defend itself vigorously. We believe we have meritorious defenses in these actions. In some countries, criminal proceedings have been initiated by the relevant authorities. SmithKline Beecham Corporation and Bayer Corporation have signed an allocation agreement under which SmithKline Beecham has agreed to pay 5 percent of all settlements and compensatory damages judgments arising out of actions based on the sale or distribution of cerivastatin in the United States, with each party responsible for paying its own attorneys' fees.

*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. As of May 30, 2003, approximately 1,100 lawsuits have been initiated in the United States against Bayer Corporation, including 14 putative class actions of which 11 have been denied. Three putative class actions are pending, and appeals are possible. Bayer AG has also been recently named as a defendant. The MDL Panel has assigned management of the federal court cases to the U.S. District Court for the Western District of Washington. The claims primarily relate to compensation for alleged damage to health, entitlement to subsequent monitoring and reimbursement of the purchase price. Claims for punitive damages have also been filed. It is probable that additional actions will be initiated in the United States 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. We may, on a case-by-case basis, settle cases for reasonable amounts when, in our judgment, settlement is economically feasible given the risks and costs inherent in the litigation. In the event that plaintiffs in these PPA actions substantially prevail, Bayer could be subject to monetary judgments in excess of our insurance coverage, which could materially affect our business, results of operations, cash flows and financial position. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

### ***Medicaid Rebate Program allegations***

Our U.S. subsidiary Bayer Corporation was under investigation by the U.S. Attorney's Office for the District of Massachusetts. The investigation, which was assisted by the Department of Health & Human Services, focused primarily on allegations that Bayer Corporation improperly underpaid rebates under the Medicaid Rebate Program during a period from 1995 to 2000. The investigation and the directly related civil and criminal claims were settled in April 2003. Under the settlement agreement, we will make payments of approximately \$260 million to cover the claims. We established a reserve for these payments in 2002. In addition, Bayer Corporation pleaded guilty to a single felony count for failing to list private label Cipro® with the U.S. Food and Drug Administration during the second half of 1995.

### ***Average wholesale price manipulation proceedings***

Fourteen pending lawsuits allege that a number of pharmaceutical companies, including Bayer Corporation, manipulated the average wholesale price of their products. The suits allege that this manipulation resulted in overcharges to Medicare beneficiaries, Medicaid recipients, state governmental health programs, and private health plans. These suits generally seek damages, treble damages, disgorgement of profits, restitution and



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attorney's fees. All of the state court actions have been removed to federal court, subject to potential remand. Nine cases filed in federal court were transferred to the U.S. District Court for the District of Massachusetts for coordinated pretrial proceedings. All but two actions are private class actions alleging injury to patients or payors. Two cases are brought by governmental entities, one by the State of Nevada and one by Suffolk County, New York, claiming recovery of their portion of Medicaid cost sharing. On May 13, 2003, the District Court of Massachusetts granted Bayer's motion to dismiss the master consolidated complaint governing some, but not all of the private party class actions pending against Bayer. Plaintiffs are expected to seek leave to file an amended complaint. Still pending before the court are motions to remand to state court the Nevada action and several of the private party class actions that were not included in the master consolidated complaint. Plaintiff in the Suffolk County action has advised Bayer that it intends to file an amended complaint.

Due to the considerable uncertainty associated with these proceedings, it is currently not possible to accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

***Rubber-related actions***

Bayer AG and certain of its U.S. and Canadian subsidiaries are the subjects of criminal and civil investigations being conducted by the Antitrust Division of the U.S. Department of Justice ( DOJ ), the Directorate General for Competition of the European Commission ( EC ), and the Canadian Competition Bureau ( CCB ). The investigations are based on allegations of cartel-related activities involving certain of Bayer's rubber-related lines of business in violation of antitrust or competition laws.

Since September 2002, the DOJ has undertaken criminal grand jury investigations of alleged cartel activities involving Bayer's rubber chemicals, ethylene propylene diene monomer ( EPDM ), and acrylonitrile butadiene rubber ( NBR ) lines of business. The EC is conducting civil investigations of similar allegations involving Bayer's rubber chemicals, EPDM and NBR lines of business. The CCB is conducting criminal investigations of allegations of cartel activities involving Bayer's rubber chemicals, EPDM and NBR lines of business.

Bayer AG and certain of its direct and indirect subsidiaries have been named as defendants in more than 20 putative class action lawsuits that have been filed in state and federal courts in the United States based on allegations related to these governmental investigations. Twenty cases have been filed in the state courts of 18 states on behalf of putative classes of plaintiffs who allegedly purchased rubber chemicals indirectly from one or more of the named defendants by purchasing a product containing or manufactured using such chemicals. Bayer AG and certain of its direct and indirect subsidiaries have also been named as defendants in private civil lawsuits that have been filed in U.S. federal courts on behalf of putative classes of plaintiffs who allegedly purchased rubber chemicals in the United States directly from one or more of the named defendants. Crompton Corporation, Uniroyal Chemical Company, Inc., Uniroyal Chemical Company Ltd., Flexsys NV, Flexsys America LP, Akzo Nobel NV, Akzo Nobel, Inc., and Solutia, Inc. have also been named as defendants in one or more of these state and federal lawsuits. The plaintiffs in these lawsuits are seeking from Bayer and each of the other defendants damages equal to three times any proven negative effect on commerce caused by their alleged conspiracy to fix prices for rubber chemicals sold in the United States, as well as injunctive relief against each defendant to prevent its future participation in such a conspiracy.

All of these lawsuits are in preliminary stages. Bayer Corporation and Rhein Chemie Corporation have been served and have filed responsive pleadings in each of the state court cases. The complaint filed in state court in North Dakota was dismissed as to Rhein Chemie Corporation for lack of jurisdiction, and the plaintiffs voluntarily dismissed without prejudice the complaint filed in Nebraska. Bayer AG and Rhein Chemie Rheinau GmbH have been served in three of the state court cases. Bayer AG has not yet filed responsive pleadings in any of these three cases, but Rhein Chemie Rheinau GmbH has filed responsive pleadings in each of them. As of June 12, 2003, Bayer Corporation has been served in two and Rhein Chemie Corporation in one of the federal cases, but neither has yet filed responsive pleadings. As of June 16, 2003 neither Bayer AG nor any of its direct or indirect subsidiaries except Bayer Corporation and Rhein Chemie Corporation had been served in the federal cases.

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Bayer is also aware that a number of private civil lawsuits have been filed in state and federal courts in the United States asserting claims based on alleged cartel-related activities involving EPDM. Bayer AG has been named as a defendant in two cases, and Bayer Corporation has been named and served in one case, all of which were filed in the U.S. District Court for the Northern District of California on behalf of a putative class of plaintiffs who allegedly purchased EPDM in the United States directly from one or more of the named defendants. Crompton Corporation, DuPont Dow Elastomers LLC, DSM N.V., and Exxon Mobil Chemical Co. are also named in one or more of these complaints. The plaintiffs are seeking from Bayer and each of the other defendants damages equal to three times any proven negative effect on commerce caused by their alleged conspiracy to fix prices for EPDM sold in the United States, as well as injunctive relief against each defendant to prevent its future participation in such a conspiracy. Neither Bayer AG nor any of its direct or indirect subsidiaries except Bayer Corporation has been served with complaints in any of these actions.

We are aware that our competitors are subject to investigations by governmental authorities based on their alleged participation in cartel-related activities involving additional rubber-related products in violation of relevant antitrust or competition laws. It is possible that additional governmental investigations may be commenced in the United States or other jurisdictions and that private civil lawsuits may arise out of these investigations, which may involve both Bayer and our competitors.

Because these cases, which may involve joint and several liability among the defendants, 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 materially adverse to our results of operations and cash flows in one or more periods. Additionally, due to the considerable uncertainty associated with these proceedings, it is currently not possible to accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

### ***Securities litigation***

Since March 6, 2003 Bayer AG, along with certain of its current and former officers and members of the Bayer AG Board of Management, has been named as a defendant in seven purported class action lawsuits filed in the U.S. District Court for the Southern District of New York. Each class action alleges violations of the U.S. securities laws and asserts that the defendants made false and misleading statements and omissions with respect to the commercial prospects, safety and efficacy of our cerivastatin anticholesterol products and with respect to the extent of the potential product liability exposure following our voluntary decision to cease marketing and withdraw these products in August 2001. Each case seeks damages on behalf of class members who allegedly purchased Bayer securities at inflated prices. There are differences between the seven complaints, both with respect to the length of the purported class period, with the longest alleging claims on behalf of persons who purchased securities from June 27, 1997 to February 21, 2003, as well as with respect to the purported class definition, with several seeking certification of a class consisting of persons who purchased American Depository Shares and others seeking certification of a class consisting of persons who purchased Bayer AG's publicly traded securities.

The cases are at an early stage. We expect that all seven cases will be consolidated before a single judge, and that a single consolidated amended class action complaint will be filed. Although Bayer AG has not yet responded to the complaints in these actions, we believe that we have meritorious defenses to these actions and intend to defend them vigorously.

### ***German shareholder lawsuit***

In June 2003 a shareholder of Bayer AG filed a lawsuit in the regional court of Cologne, Germany (*Landgericht Köln*). This plaintiff is challenging certain resolutions approved by the Shareholder's Meeting of April 25, 2003, including the financial statements of Bayer AG (not the consolidated financial statements) and consequently the distribution of profits. In effect, the plaintiff seeks to prevent the implementation of our planned new corporate structure. See Item 4, *Information on the Company - Business*. While this case is pending, the asset transfers within the Bayer Group to our new operating and support subsidiaries cannot be recorded in the commercial register.

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We believe that the plaintiff's lawsuit is without merit and intend to defend ourselves vigorously. Furthermore, in cases of this type German law permits the defendant to seek dismissal in an accelerated proceeding (*Eilverfahren*). We intend to make use of this accelerated proceeding.

We do not believe that this lawsuit will affect our day-to-day business. On an operational level, we began to put our new structure into place in July 2002 and expect to continue to be able to do so. If we cannot resolve this matter satisfactorily within a reasonable period of time, however, or if the plaintiff prevails, it could be more difficult for us to implement some elements of our long-term strategic plans.

### ***Asbestos litigation***

We are currently involved in asbestos litigation in the United States, primarily as a premises defendant, predominantly in the states in which Bayer has industrial sites. The overwhelming majority of cases involving Bayer have been filed in West Virginia and Texas and involve allegations of exposure at Bayer's sites. Texas law and West Virginia law permit consolidated asbestos actions in which multiple plaintiffs can sue multiple defendants for asbestos-related conditions without specifying which plaintiff has a claim against which defendant. While Bayer may be named as a defendant, each plaintiff does not have to assert a claim against Bayer. In West Virginia, Bayer is a defendant in approximately 26 cases involving 2,424 plaintiffs. Bayer has been identified by less than 10 percent of the named plaintiffs in these actions, i.e. of the 2,424 plaintiffs, approximately 240 have claimed to work at a Bayer site. In addition, after past settlements in principle are finalized, we will be involved in only seven West Virginia cases involving 353 plaintiffs, as well as one medical monitoring class action that is currently inactive. Bayer is involved in 56 cases in Texas involving 6,329 plaintiffs, and, as in West Virginia, is typically identified by a small percentage of plaintiffs (less than 5 percent). Bayer also has cases pending in Indiana and California.

The allegations as to Bayer and numerous other premises defendants are that Bayer employed many contractors on our industrial sites, yet failed to warn them or protect them from the known hazards of asbestos exposures throughout the 1960's, 1970's and 1980's. Since premises owners now form a new group of targeted corporate defendants in these litigations, these types of actions may become material to our business in the future.

One of our U.S. subsidiaries, Bayer CropScience, Inc., is the legal successor to entities that sold asbestos-containing products from the 1940's until 1976 and is named as a defendant in asbestos-related litigation. Bayer CropScience is and has been fully indemnified for its costs and exposure in relation to this litigation by Union Carbide. Union Carbide continues to accept Bayer CropScience's tender of these cases, and it defends and settles them in Bayer CropScience's name, in its own name and in the name of the several predecessor companies to Bayer CropScience.

We believe that we have meritorious defenses in these actions and are defending them vigorously. Without acknowledging any liability, we have settled a number of these cases in the past. We may, on a case-by-case basis, settle additional cases for reasonable amounts when, in our judgment, settlement is economically feasible given the risks and costs inherent in the litigation. We have made what we believe to be appropriate provisions should these suits result in judgments in favor of the plaintiffs.

### ***Plant Genetic Systems litigation***

Former shareholders of Plant Genetic Systems NV (PGS) have initiated arbitration proceedings in the Netherlands against AgrEvo, now Bayer CropScience GmbH. Claimants seek damages of up to \$400 million based on alleged violations of a confidentiality agreement in connection with the acquisition of PGS by AgrEvo in 1996, which allegedly prevented claimants from obtaining a higher purchase price. Bayer CropScience believes that claimants' allegations are without merit and will continue to contest these allegations vigorously. The stock purchase agreement between Aventis and Bayer for Aventis CropScience provides that, in case of a decision against Bayer CropScience, Bayer CropScience will be fully indemnified by Hoechst AG and/or Aventis Nutrition S.A.

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### **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. More than 10 percent of the net income may be allocated to retained earnings only if such retained earnings would then not exceed 50 percent of our capital stock. 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. Additionally, the ordinary general stockholders meeting may decide to distribute the balance sheet profit partly or in total to the stockholders by way of distribution in kind.

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 Item 3, *Key Information – Dividends*.

**Table of Contents****Item 9. The Listing****Listing Details**

Bayer AG's shares 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 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 is 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 and on the New York Stock Exchange.

|                             | Frankfurt Stock Exchange |       | New York Stock Exchange |       |
|-----------------------------|--------------------------|-------|-------------------------|-------|
|                             | High                     | Low   | High                    | Low   |
|                             | (in euros)               |       | (in dollars)            |       |
| <b>1998</b>                 | 49.80                    | 29.40 |                         |       |
| <b>1999</b>                 | 47.65                    | 29.74 |                         |       |
| <b>2000</b>                 | 56.50                    | 38.52 |                         |       |
| <b>2001:</b>                |                          |       |                         |       |
| First quarter               | 58.00                    | 44.79 |                         |       |
| Second quarter              | 50.15                    | 42.42 |                         |       |
| Third quarter               | 47.25                    | 23.90 |                         |       |
| Fourth quarter              | 39.00                    | 29.41 |                         |       |
| <b>2002:</b>                |                          |       |                         |       |
| First quarter(1)            | 40.80                    | 33.30 | 36.00                   | 28.91 |
| Second quarter              | 40.10                    | 30.90 | 33.45                   | 30.20 |
| Third quarter               | 33.27                    | 17.45 | 32.25                   | 17.60 |
| Fourth quarter              | 23.66                    | 17.59 | 23.74                   | 17.30 |
| <b>2003:</b>                |                          |       |                         |       |
| First quarter               | 22.42                    | 10.28 | 23.38                   | 11.24 |
| <b>Previous six months:</b> |                          |       |                         |       |
| December 2002               | 23.55                    | 19.55 | 23.74                   | 20.57 |
| January 2003                | 22.42                    | 16.28 | 23.38                   | 17.29 |
| February 2003               | 16.66                    | 11.65 | 17.74                   | 12.58 |
| March 2003                  | 14.20                    | 10.28 | 15.40                   | 11.24 |
| April 2003                  | 16.95                    | 12.35 | 18.36                   | 13.60 |
| May 2003                    | 18.34                    | 16.31 | 21.30                   | 18.30 |

(1) From January 24, 2002 for New York Stock Exchange.

The average daily volume of Bayer shares traded on the Frankfurt Stock Exchange for the years 2002, 2001 and 2000 was 3,807,568, 3,495,113 and 2,549,929, respectively. The average daily trading volume in 2002 was 64,907 on the New York Stock Exchange (from January 24).

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### **Item 10. Additional Information**

#### **Description of Share Capital**

For a description of material provisions of Bayer AG's articles of association (*Satzung*), including a discussion of the voting, dividend and other rights of shareholders, see Exhibit 1.1.

The Board of Management is authorized to repurchase shares for such purposes as distribution to members of the management who are not Board members and to employees of Bayer Group companies in connection with share option programs. This authorization has been extended to October 24, 2004. See *Employee option plans* in Item 6, *Directors, Senior Management and Employees Compensation*.

#### **Material contracts**

In connection with our acquisition of Aventis CropScience, we entered into two Stock Purchase Agreements, each dated October 2, 2001, with the former shareholders of Aventis CropScience. The first agreement was with Aventis S.A. and Hoechst AG. The second was with Schering AG and SCIC Holdings LLC. Exhibits 4.1 and 4.2 to this Annual Report incorporate by reference these agreements as previously filed with the Commission.

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 annual report, 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.

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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***

We are required to withhold tax on dividends in respect of the 2002 fiscal year in 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. 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. 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 on the withholding tax due. The surtax will equal 1.1 percent (5.5 percent x 20 percent) of the gross dividend. 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 20 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. It can also be downloaded from the following web site: [http://www.bff-online.de/Steuer\\_Vordrucke/KSt\\_KapSt/ClaimRefundWithholdingTaxesDividends\\_Interests.pdf](http://www.bff-online.de/Steuer_Vordrucke/KSt_KapSt/ClaimRefundWithholdingTaxesDividends_Interests.pdf).

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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, upon request, 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. IRS Publication 686 describes the certification procedure in more detail.

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, capital gains generally will be subject to tax at preferential rates, provided certain holding periods are met.



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### ***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 28 percent 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.

### ***Recent U.S. Tax Law Changes Applicable to Individuals***

Recent U.S. tax legislation generally has reduced the rates of tax payable by individuals (as well as certain trusts and estates) on many items of income. Under the Jobs and Growth Tax Relief Reconciliation Act of 2003 (the 2003 Act), the marginal tax rates applicable to ordinary income generally have been lowered effective January 1, 2003. Furthermore, for capital assets held for over one year and sold or exchanged on or after May 6,

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2003 but in taxable years beginning before January 1, 2009, the maximum rate of tax generally will be 15% (rather than the higher rates of tax generally applicable to items of ordinary income). Finally, qualified dividend income received in taxable years beginning after December 31, 2002 and beginning before January 1, 2009, generally will be taxed at the rates applicable to these capital gains (*i.e.*, a maximum rate of 15%) rather than the rates applicable to other items of ordinary income. For this purpose, qualified dividend income generally includes dividends received from U.S. corporations as well as from certain non-U.S. corporations. The exact extent to which dividends paid by non-U.S. corporations will constitute qualified dividend income and the effect of such status on the ability of a taxpayer to utilize associated foreign tax credits is not entirely clear at present, but it is anticipated that a number of uncertainties will be clarified through administrative pronouncements throughout the remainder of 2003. In the meantime, you are urged to consult your own tax advisor regarding the impact on your particular situation of the provisions of the 2003 Act.

**Documents on display**

You can inspect the documents concerning Bayer AG mentioned in this annual report 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.

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### **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 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 U.S. dollar and the Brazilian real.

*Interest rate fluctuations.* We are exposed to changes in interest rates. Our primary interest rate exposure is to fluctuations in short-and long-term European and U.S. interest rates. Our exposure to European interest-rate fluctuation decreased in 2002 compared with the previous year, primarily as a result of our issuance of \$5 billion in fixed-rate debt to finance our acquisition of Aventis CropScience.

*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 cash flows of the financial instruments and derivative financial instruments that we held as of December 31, 2002 and 2001. These instruments 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 (all changes in fair value and interest rate performance) of a financial instrument will change due to movements in market rates of interest. This risk primarily affects debt 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 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.

**Table of Contents***Derivative financial instruments*

Derivative financial instruments are our main method of interest rate hedging. We use interest rate swaps to convert a portion of our fixed rate borrowings into, in effect, floating rate debt. 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, 2002 and 2001; the fair values quoted disregard any opposite movements in the values of the underlying transactions.

|                                 | Notional amount     |       | Fair value |      |
|---------------------------------|---------------------|-------|------------|------|
|                                 | December 31,        |       |            |      |
|                                 | 2002                | 2001  | 2002       | 2001 |
|                                 | (euros in millions) |       |            |      |
| Interest rate hedging contracts | 5,799               | 4,485 | 365        | (60) |

At December 31, 2002, the notional amount of our short-term interest rate hedging contracts (including interest and principal currency swaps) totaled 0.5 billion (2001: 2.0 billion); those maturing after more than one year totaled 5.3 billion (2001: 2.5 billion).

*Sensitivity Analysis*

Based on our variable interest rate debt position at year-end 2002, a hypothetical increase of 100 basis points, or one percent per year, of interest rates in all currencies would result in a growth of interest expense as at December 31, 2002 of 39 million (2001: 45 million).

**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, and 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.

*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

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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 Japanese yen and the Brazilian real. 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 transaction 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, 2002 and 2001:

|   | Notional amount     |       | Fair value |      |
|---|---------------------|-------|------------|------|
|   | December 31,        |       |            |      |
|   | 2002                | 2001  | 2002       | 2001 |
|   | (euros in millions) |       |            |      |
| Forward exchange contracts and currency swaps | 2,979               | 2,749 | 105        | (28) |
| Currency options                              | 239                 | 279   | 9          | *    |

\*Less than 1 million

At December 31, 2002, we estimated that our aggregate annual direct net transaction risk from sales and purchases in foreign currencies was approximately 2.7 billion, which consisted primarily of U.S. dollars (\$1.7 billion), Japanese yen (¥53 billion) and Brazilian real (R1.3 billion). We do not anticipate a significant change in these levels of risk with respect to our current business operations during 2003.

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 2002 and 2001:

| Currency vs. euro      | 2002      |                   |                |                   | 2001      |                |
|------------------------|-----------|-------------------|----------------|-------------------|-----------|----------------|
|                        | Effective | % Change vs. 2001 | Market Average | % Change vs. 2001 | Effective | Market Average |
| U.S. dollar            | 0.9433    | 4.6               | 0.9452         | 5.5               | 0.9014    | 0.8956         |
| Japanese yen           | 117.39    | 8.4               | 118.06         | 8.6               | 108.34    | 108.68         |
| British pound sterling | 0.6301    | 2.0               | 0.6287         | 1.1               | 0.6177    | 0.6219         |
| Currency vs. \$        |           |                   |                |                   |           |                |
| Brazilian real         | 3.1807    | *                 | 2.7848         | 32.4              | *         | 2.1031         |

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\* Insufficient trades in 2001 to calculate effective market rates.

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### *Sensitivity Analysis*

We applied a hypothetical adverse change of 10 percent in foreign currency exchange rates where all foreign exchange rates simultaneously weakened against the euro. The estimated hypothetical loss in cash flows of derivative and non-derivative financial instruments as at December 31, 2002 is 43 million (2001: 50 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. From time to time, we also enter into swap agreements to manage supply and demand. The most important of our raw materials affected by price fluctuations are:

1,3-butadiene

ACN

Benzene

Cyclohexane

Phenol

Propylene oxide

Styrene

Toluene

These products are derived from crude oil, therefore their prices are affected by the market price of crude oil.

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, 2002.

### **Item 12. Description of Securities Other Than Equity Securities**

Not applicable

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**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. Controls and Procedures**

As required by Rule 13a-15 under the Securities Exchange Act of 1934, the chairman of our Board of Management and our chief financial officer, assisted by other members of our management, have evaluated our disclosure controls and procedures within 90 days prior to the date of this annual report. Based on this evaluation, they have concluded that our disclosure controls and procedures are effective to ensure that the information we are required to disclose in this annual report is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission. There were no significant changes in our internal controls or in other factors that could significantly affect these controls subsequent to the date of the evaluation. We identified no significant deficiencies or material weaknesses that required corrective action.

**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-77, incorporated herein by reference.

**Item 19. Exhibits**

Documents filed as exhibits to this Annual Report:

|             |   |
|-------------|---|
| 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 4.1 | Stock Purchase Agreement dated October 2, 2001 among Aventis S.A., Hoechst AG, and Bayer AG.**  |
| Exhibit 4.2 |   |



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Stock Purchase Agreement dated as of October 2, 2001, among Schering Aktiengesellschaft, SCIC Holdings LLC and Bayer AG.\*\*\*

|             |   |
|-------------|---|
| Exhibit 4.3 | Summary of Employment Arrangements between Bayer AG and Werner Wenning.   |
| Exhibit 4.4 | Summary of Employment Arrangements between Bayer AG and Dr. Udo Oels.     |
| Exhibit 4.5 | Summary of Employment Arrangements between Bayer AG and Klaus Kühn.       |
| Exhibit 4.6 | Summary of Employment Arrangements between Bayer AG and Dr. Richard Pott. |

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Exhibit 8.1 Subsidiaries as of the end of the year covered by this report: See *Organizational Structure* in Item 4, *Information on the Company*. 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 11.1 Certification in accordance with 18 U.S.C. § 1350 as adopted by § 906 of the Sarbanes-Oxley Act of 2002

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\* Incorporated by reference to Exhibit 1.1 to the Registration Statement on Form 20-F of Bayer AG filed with the Commission on January 15, 2002.

\*\* Incorporated by reference to Exhibit 2.3 to the Annual Report on Form 20-F of Aventis, SEC File Number 001-10378, filed with the Commission on April 8, 2002, for which confidential treatment was requested.

\*\*\* Incorporated by reference to Exhibit 1 to the Report on Form 6-K of Schering AG, SEC File Number 001-16143, filed with the Commission on March 13, 2002, for which confidential treatment was requested.

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**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

**BAYER AG**

/s/ WERNER WENNING

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Name: Werner Wenning  
Title: Chairman of the Board of Management

/s/ DR. ROLAND HARTWIG

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Name: Dr. Roland Hartwig  
Title: General Counsel

Date: June 27, 2003

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**CERTIFICATION OF THE PRINCIPAL EXECUTIVE OFFICER OF THE REGISTRANT**

**IN ACCORDANCE WITH RULE 13a-14  
UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED**

I, Werner Wenning, certify that:

1. I have reviewed this annual report on Form 20-F of Bayer AG;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15 and 15d-15) for the registrant and have:
  - (a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this report (the Evaluation Date); and
  - (c) presented in this report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officer and I have indicated in this report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

/s/ WERNER WENNING

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Name: Werner Wenning

Title: Chairman of the Board of Management

Date: June 27, 2003

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**CERTIFICATION OF THE PRINCIPAL FINANCIAL OFFICER OF THE REGISTRANT**

**IN ACCORDANCE WITH RULE 13a-14  
UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED**

I, Klaus Kühn, certify that:

1. I have reviewed this annual report on Form 20-F of Bayer AG;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15 and 15d-15) for the registrant and have:
  - (a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this report (the Evaluation Date); and
  - (c) presented in this report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officer and I have indicated in this report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

/s/ KLAUS KÜHN

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Name: Klaus Kühn  
Title: Chief Financial Officer and  
Member of the Board of Management

Date: June 27, 2003

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**BAYER GROUP**

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**Report of Independent Accountants**

To the Board of Directors

and Stockholders of Bayer AG

We have audited the accompanying consolidated balance sheets of Bayer AG and its subsidiaries (the Group) as of December 31, 2002 and 2001, and the related consolidated statements of income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2002. 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 the Group at December 31, 2002, and 2001, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2002 in conformity with International Accounting Standards.

International Accounting Standards vary in certain significant respects from accounting principles generally accepted in the United States of America. The application of the latter would have affected the determination of consolidated net income for the years ended December 31, 2002, 2001 and 2000, and the determination of consolidated stockholders' equity as of December 31, 2002 and 2001, to the extent summarized in Note 44 to the consolidated financial statements.

Essen, Germany

February 26, 2003

PwC Deutsche Revision

Aktiengesellschaft  
Wirtschaftsprüfungsgesellschaft

/s/ ALBRECHT

P. Albrecht  
(Certified Public Accountant)

/s/ LINKE

V. Linke  
(Certified Public Accountant)

**Table of Contents****Bayer Group Consolidated Statements of Income**

|  | Note | 2002     | 2001       | 2000     |
|--|------|----------|------------|----------|
|  |      |          | ( million) |          |
| <b>Net sales</b>   | [1]  | 29,624   | 30,275     | 30,971   |
| <i>Net sales from discontinuing operations</i>                 | [6]  | (666)    | (1,105)    | (1,850)  |
| Net sales from continuing operations                           |      | 28,958   | 29,170     | 29,121   |
| Cost of goods sold   |      | (17,509) | (16,747)   | (15,460) |
| <b>Gross profit</b>  |      | 11,449   | 12,423     | 13,661   |
| Selling expenses   | [2]  | (6,786)  | (7,006)    | (6,687)  |
| Research and development expenses                              | [3]  | (2,532)  | (2,496)    | (2,328)  |
| General administration expenses                                |      | (1,228)  | (999)      | (893)    |
| Other operating income   | [4]  | 1,732    | 481        | 435      |
| Other operating expenses                                       | [5]  | (2,041)  | (1,198)    | (1,073)  |
| <b>Operating result from continuing operations</b>             |      | 594      | 1,205      | 3,115    |
| <i>Operating result from discontinuing operations</i>          | [6]  | 980      | 406        | 172      |
| Operating result   | [7]  | 1,574    | 1,611      | 3,287    |
| Income (Expenses) from investments in affiliated companies net | [8]  | 223      | 54         | 283      |
| Interest expense net   | [9]  | (449)    | (349)      | (311)    |
| Other non-operating expenses net                               | [10] | (392)    | (201)      | (269)    |
| <b>Non-operating results</b>                                   |      | (618)    | (496)      | (297)    |
| <b>Income before income taxes</b>                              |      | 956      | 1,115      | 2,990    |
| Income taxes   | [11] | 107      | (154)      | (1,148)  |
| <b>Income after taxes</b>                                      |      | 1,063    | 961        | 1,842    |
| Minority Stockholders interest                                 | [13] | (3)      | 4          | (26)     |
| <b>Net income</b>  |      | 1,060    | 965        | 1,816    |
| <b>Basic and diluted earnings per share ( )</b>                | [14] | 1.45     | 1.32       | 2.49     |



**Table of Contents****Bayer Group Consolidated Balance Sheets**

|  | Note | Dec. 31, 2002 | Dec. 31, 2001 |
|--|------|---------------|---------------|
| ( million)   |      |               |               |
| <b>ASSETS</b>  |      |               |               |
| <b>Noncurrent assets</b>                                   |      |               |               |
| Intangible assets  | [18] | 8,879         | 5,014         |
| Property, plant and equipment                              | [19] | 12,436        | 13,543        |
| Investments  | [20] | 2,198         | 3,145         |
|  |      | <u>23,513</u> | <u>21,702</u> |
| <b>Current assets</b>                                      |      |               |               |
| Inventories  | [21] | 6,342         | 5,818         |
| Receivables and other assets                               |      |               |               |
| Trade accounts receivable                                  | [22] | 5,542         | 5,415         |
| Other receivables and other assets                         | [23] | 4,210         | 2,447         |
|  |      | <u>9,752</u>  | <u>7,862</u>  |
| <b>Liquid assets</b>                                       | [24] |               |               |
| Marketable securities and other instruments                |      | 29            | 52            |
| Cash and cash equivalents                                  |      | 767           | 719           |
|  |      | <u>796</u>    | <u>771</u>    |
|  |      | <u>16,890</u> | <u>14,451</u> |
| <b>Deferred taxes</b>                                      | [11] | 967           | 608           |
| <b>Deferred charges</b>                                    | [25] | 322           | 278           |
|  |      | <u>41,692</u> | <u>37,039</u> |
| <i>of which discontinuing operations</i>                   | [35] | 0             | 820           |
| <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  |      | 10,076        | 9,841         |
| Net income   |      | 1,060         | 965           |
| Other Comprehensive Income                                 |      |               |               |
| Currency translation adjustment                            |      | (593)         | 759           |
| Miscellaneous items  |      | (20)          | 545           |
|  | [26] | <u>15,335</u> | <u>16,922</u> |
| <b>Minority Stockholders' interest</b>                     | [27] | 120           | 98            |
| <b>Liabilities</b>   |      |               |               |
| <b>Long-term liabilities</b>                               |      |               |               |
| Long-term financial obligations                            | [30] | 7,318         | 3,071         |
| Miscellaneous long-term liabilities                        | [32] | 92            | 140           |
| Provisions for pensions and other post-employment benefits | [28] | 4,925         | 4,407         |
| Other long-term provisions                                 | [29] | 1,215         | 1,288         |

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|  |      |        |        |
|--|------|--------|--------|
|  |      | 13,550 | 8,906  |
| <b>Short-term liabilities</b>            |      |        |        |
| Short-term financial obligations         | [30] | 2,841  | 4,309  |
| Trade accounts payable                   | [31] | 2,534  | 1,993  |
| Miscellaneous short-term liabilities     | [32] | 2,138  | 1,832  |
| Short-term provisions                    | [29] | 2,257  | 1,477  |
|  |      | 9,770  | 9,611  |
|  |      | 23,320 | 18,517 |
| <i>of which discontinuing operations</i> | [35] | 0      | 233    |
| <b>Deferred taxes</b>                    | [11] | 2,453  | 1,238  |
| <b>Deferred income</b>                   | [34] | 464    | 264    |
|  |      | 41,692 | 37,039 |

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**Table of Contents****Bayer Group Consolidated Statements of Changes in Stockholders' Equity**

|  | Number of<br>shares | Capital<br>stock of<br>Bayer AG | Capital<br>reserves<br>of<br>Bayer AG | Retained<br>earnings | Net<br>Income  | Currency<br>translation<br>adjustment | Miscellaneous items                             |                        | Total<br>Stockholders<br>equity |
|--|---------------------|---------------------------------|---------------------------------------|----------------------|----------------|---------------------------------------|---|------------------------|---------------------------------|
|  |                     |                                 |                                       |                      |                |                                       | Fair-value<br>remeasurement<br>of<br>securities | Cash<br>flow<br>hedges |                                 |
| <b>Dec. 31, 1999</b>   | 730,341,920         | 1,870                           | 2,942                                 | 7,965                | 2,002          | 227                                   | 0   | 0                      | 15,006                          |
| ( million, except share data)  |                     |                                 |                                       |                      |                |                                       |   |                        |                                 |
| <b>Changes in stockholders<br/>equity resulting from capital<br/>contributions and dividend<br/>payments</b> |                     |                                 |                                       |                      |                |                                       |   |                        |                                 |
| Capital contributions  |                     |                                 |                                       |                      |                |                                       |   |                        |                                 |
| Dividend payments  |                     |                                 |                                       |                      | (949)          |                                       |   |                        | (949)                           |
|  |                     |                                 |                                       |                      | <u>(949)</u>   |                                       |   |                        | <u>(949)</u>                    |
| <b>Other changes in<br/>stockholders' equity not<br/>recognized in income</b>                                |                     |                                 |                                       |                      |                |                                       |   |                        |                                 |
| Exchange differences   |                     |                                 |                                       |                      |                | 238                                   |   |                        | 238                             |
| Other differences  |                     |                                 |                                       | 29                   |                |                                       |   |                        | 29                              |
|  |                     |                                 |                                       | <u>29</u>            |                | <u>238</u>                            |   |                        | <u>267</u>                      |
| <b>Changes in stockholders<br/>equity recognized in income</b>   |                     |                                 |                                       |                      |                |                                       |   |                        |                                 |
| Allocation to retained<br>earnings   |                     |                                 |                                       | 1,053                | (1,053)        |                                       |   |                        | 0                               |
| Income after taxes for 2000  |                     |                                 |                                       |                      | 1,816          |                                       |   |                        | 1,816                           |
|  |                     |                                 |                                       | <u>1,053</u>         | <u>763</u>     |                                       |   |                        | <u>1,816</u>                    |
| <b>Dec. 31, 2000</b>   | 730,341,920         | 1,870                           | 2,942                                 | 9,047                | 1,816          | 465                                   | 0   | 0                      | 16,140                          |
| <b>Jan. 1, 2001</b>  | 730,341,920         | 1,870                           | 2,942                                 | 9,047                | 1,816          | 465                                   | 1,339   | 95                     | 17,574                          |
| <b>Changes in stockholders<br/>equity resulting from capital<br/>contributions and dividend<br/>payments</b> |                     |                                 |                                       |                      |                |                                       |   |                        |                                 |
| Capital contributions  |                     |                                 |                                       |                      |                |                                       |   |                        |                                 |
| Dividend payments  |                     |                                 |                                       |                      | (1,022)        |                                       |   |                        | (1,022)                         |
|  |                     |                                 |                                       |                      | <u>(1,022)</u> |                                       |   |                        | <u>(1,022)</u>                  |
| <b>Other changes in<br/>stockholders' equity not<br/>recognized in income</b>                                |                     |                                 |                                       |                      |                |                                       |   |                        |                                 |
| Exchange differences   |                     |                                 |                                       |                      |                | 294                                   |   |                        | 294                             |
| Other differences  |                     |                                 |                                       |                      |                |                                       | (785)   | (104)                  | (889)                           |
|  |                     |                                 |                                       |                      |                | <u>294</u>                            | <u>(785)</u>                                    | <u>(104)</u>           | <u>(595)</u>                    |
| of which realized (gains)<br>losses  |                     |                                 |                                       |                      |                |                                       | (25)  | (68)                   | (93)                            |
|  |                     |                                 |                                       |                      |                | <u>294</u>                            | <u>(785)</u>                                    | <u>(104)</u>           | <u>(595)</u>                    |
| <b>Changes in stockholders<br/>equity recognized in income</b>   |                     |                                 |                                       |                      |                |                                       |   |                        |                                 |
| Allocation to retained<br>earnings   |                     |                                 |                                       | 794                  | (794)          |                                       |   |                        | 0                               |
| Income after taxes for 2001  |                     |                                 |                                       |                      | 965            |                                       |   |                        | 965                             |
|  |                     |                                 |                                       | <u>794</u>           | <u>171</u>     |                                       |   |                        | <u>965</u>                      |

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|  |             |       |       |        |       |         |       |      |         |
|--|-------------|-------|-------|--------|-------|---------|-------|------|---------|
| <b>Dec. 31, 2001</b>   | 730,341,920 | 1,870 | 2,942 | 9,841  | 965   | 759     | 554   | (9)  | 16,922  |
| <b>Changes in stockholders equity resulting from capital contributions and dividend payments</b> |             |       |       |        |       |         |       |      |         |
| Capital contributions  |             |       |       |        |       |         |       |      |         |
| Dividend payments  |             |       |       |        | (657) |         |       |      | (657)   |
|  |             |       |       |        | (657) |         |       |      | (657)   |
| <b>Other changes in stockholders equity not recognized in income</b>                             |             |       |       |        |       |         |       |      |         |
| Exchange differences   |             |       |       |        |       | (1,352) |       |      | (1,352) |
| Other differences  |             |       |       |        |       |         | (561) | (4)  | (565)   |
|  |             |       |       |        |       |         |       |      |         |
| of which realized (gains) losses   |             |       |       |        |       |         | (154) | 9    | (145)   |
|  |             |       |       |        |       | (1,352) | (561) | (4)  | (1,917) |
| <b>Changes in stockholders equity recognized in income</b>                                       |             |       |       |        |       |         |       |      |         |
| Allocation to retained earnings  |             |       |       | 235    | (308) |         |       |      | (73)    |
| Income after taxes for 2002  |             |       |       |        | 1,060 |         |       |      | 1,060   |
|  |             |       |       | 235    | 752   |         |       |      | 987     |
| <b>Dec. 31, 2002</b>   | 730,341,920 | 1,870 | 2,942 | 10,076 | 1,060 | (593)   | (7)   | (13) | 15,335  |

**Table of Contents****Bayer Group Consolidated Statements of Cash Flows**

|  | Note | 2002           | 2001           | 2000           |
|--|------|----------------|----------------|----------------|
|  |      |                | ( million)     |                |
| Operating result   |      | 1,574          | 1,611          | 3,287          |
| Income taxes   |      | (339)          | (637)          | (873)          |
| Depreciation and amortization  |      | 3,313          | 2,516          | 2,139          |
| Change in long-term provisions   |      | (135)          | (193)          | (316)          |
| Gains on retirements of noncurrent assets                                    |      | (1,401)        | (374)          | (73)           |
| <b>Gross cash provided by operating activities</b>                           |      | <b>3,012</b>   | <b>2,923</b>   | <b>4,164</b>   |
| (Increase) Decrease in inventories   |      | (55)           | 146            | (750)          |
| (Increase) Decrease in trade accounts receivable                             |      | 546            | 638            | (548)          |
| Increase (Decrease) in trade accounts payable                                |      | 419            | 73             | 351            |
| Changes in other working capital   |      | 498            | 79             | (126)          |
| <b>Net cash provided by operating activities</b>                             | [39] | <b>4,420</b>   | <b>3,859</b>   | <b>3,091</b>   |
| <i>of which discontinuing operations</i>                                     | [42] | 87             | 131            | 188            |
| Cash outflows for additions to property, plant and equipment                 |      | (2,239)        | (2,617)        | (2,647)        |
| Cash inflows from sales of property, plant and equipment                     |      | 2,114          | 521            | 322            |
| Cash inflows and outflows related to investments                             |      | 903            | 109            | (45)           |
| Cash outflows for acquisitions less acquired cash                            |      | (7,776)        | (502)          | (4,125)        |
| Interest and dividends received  |      | 402            | 138            | 191            |
| Cash inflows from marketable securities                                      |      | 26             | 219            | 115            |
| <b>Net Cash provided by (used in) investing activities</b>                   | [40] | <b>(6,570)</b> | <b>(2,132)</b> | <b>(6,189)</b> |
| <i>of which discontinuing operations</i>                                     | [42] | 1,286          | 310            | (268)          |
| Capital contributions  |      | 0              | 0              | 2              |
| Bayer AG dividend and dividend payments to minority stockholders             |      | (662)          | (1,028)        | (953)          |
| Issuances of debt  |      | 7,427          | 2,514          | 3,952          |
| Retirements of debt  |      | (3,890)        | (2,551)        | (1,893)        |
| Interest paid  |      | (704)          | (505)          | (440)          |
| Taxes on the non-operating result  |      | 38             | 21             | 104            |
| <b>Net cash provided by (used in) financing activities</b>                   | [41] | <b>2,209</b>   | <b>(1,549)</b> | <b>772</b>     |
| <i>of which discontinuing operations</i>                                     | [42] | 1              | 77             | 11             |
| <b>Change in cash and cash equivalents due to business activities</b>        |      | <b>59</b>      | <b>178</b>     | <b>(2,326)</b> |
| <b>Cash and cash equivalents at beginning of year</b>                        |      | <b>719</b>     | <b>491</b>     | <b>2,812</b>   |
| Change in cash and cash equivalents due to changes in scope of consolidation |      | 4              | 42             | (3)            |
| Change in cash and cash equivalents due to exchange rate movements           |      | (15)           | 8              | 8              |
| <b>Cash and cash equivalents at end of year</b>                              |      | <b>767</b>     | <b>719</b>     | <b>491</b>     |

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|   |            |            |            |
|---|------------|------------|------------|
| Marketable securities and other instruments | 29         | 52         | 213        |
| <b>Liquid assets as per balance sheets</b>  | <b>796</b> | <b>771</b> | <b>704</b> |

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**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 Board (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).

A Declaration of Conformity with the German Corporate Governance Code has been issued in compliance with §161 of the German Stock Corporation Act and made available to stockholders.

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.

In compliance with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets), provisions are established for contingent liabilities if available information indicates that an asset has been impaired or a liability has been incurred, and the amount of the impairment loss can be estimated with sufficient reliability.

Certain income statement and balance sheet items are combined for the sake of clarity, as explained in the Notes. 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. Income received such as royalties, rental income, interest income or dividend income is recognized on an accrual basis.

Changes in recognition and valuation principles are explained in the Notes. The previous year's 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**

The consolidated financial statements of the Bayer Group for the 2002 fiscal year comply with the following new or revised interpretations of the Standing Interpretations Committee (SIC), which the Group implemented for the first time in 2002:

|        |   |
|--------|---|
| SIC-27 | Evaluating the Substance of Transactions Involving the Legal Form of a Lease                    |
| SIC-28 | Business Combinations – Date of Exchange – and Fair Value of Equity Instruments                 |
| SIC-29 | Disclosure – Service Concession Agreements  |
| SIC-30 | Reporting Currency – Translation from Measurement Currency to Presentation Currency             |
| SIC-31 | Revenue – Barter Transactions Involving Advertising Services                                    |
| SIC-32 | Intangible Assets – Web Site Costs  |
| SIC-33 | Consolidation and Equity Method – Potential Voting Rights and Allocation of Ownership Interests |

The adoption of these new interpretations did not have any significant impact on Bayer's financial position or its results of operations during 2002 or on the comparability of its 2002 and 2001 consolidated financial statements.





**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

The following new International Accounting Standard (IAS) will be implemented in 2003:

## IAS 41 Agriculture

IAS 41 Agriculture prescribes the accounting treatment, financial statement presentation and disclosures related to agricultural activity. This standard stipulates, among other things, the accounting treatment for biological assets during the period of growth, degeneration, production and procreation, and for the initial measurement of agricultural produce at the point of harvest. It prescribes that biological assets be included at fair value less estimated point-of-sale costs, provided that fair value can be measured reliably. Agricultural produce harvested from such biological assets is also recognized at fair value at the point of harvest less estimated point-of-sale costs.

**Scope of consolidation**

The financial statements of the Bayer Group as of December 31, 2002 include Bayer AG and 59 German and 268 foreign consolidated subsidiaries in which Bayer AG, directly or indirectly, has a majority of the voting rights, over which it exercises uniform control, or from which it is able to derive benefit by virtue of its power to govern corporate financial and operating policies. The total number of consolidated companies has risen by 89 from the previous year. Excluded from consolidation are 154 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. The rise in the number of subsidiaries is principally due to the acquisition of Aventis CropScience Holding S.A., France, effective June 1, 2002.

We have included 11 joint ventures – one fewer than in the previous year – by proportionate consolidation in compliance with IAS 31 (Financial Reporting of Interests in Joint Ventures). The effect of joint ventures on the Group balance sheet and income statement is as follows:

|                           | <u>million</u>    |
|---------------------------|-------------------|
| Noncurrent assets         | 217               |
| Current assets            | 151               |
| Pension provisions        | (7)               |
| Other provisions          | (11)              |
| Financial obligations     | (61)              |
| Remaining liabilities     | (53)              |
|                           | <u>          </u> |
| <b>Net assets</b>         | <b>236</b>        |
|                           | <b>          </b> |
| Income                    | 428               |
| Expenses                  | 383               |
|                           | <u>          </u> |
| <b>Income after taxes</b> | <b>45</b>         |
|                           | <b>          </b> |

While 11 companies are stated at equity, 61 companies that in aggregate are of minor importance are stated at their carrying amounts.

Consolidated for the first time are 145 companies, while 56 companies have been deconsolidated. The increase is largely due to the acquisition of Aventis CropScience (108 companies) and the Visible Genetics group (10 companies). The companies no longer consolidated are those of the divested Haarmann & Reimer group (22 companies), those merged with former Aventis CropScience companies, and 12 other companies.

**Acquisitions/ Divestitures**

Acquisitions are accounted for by the purchase method. Accordingly, the results of operations of the acquired businesses are included in the consolidated financial statements as from the respective dates of



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**Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

acquisition. The purchase prices of acquisitions outside the euro zone are translated at the exchange rates in effect at the respective dates of acquisition.

In 2002 a total of 7.9 billion was spent on acquisitions, calculated at exchange rates at the time of acquisition. They were paid for in cash, not with shares in Bayer AG. These acquisitions led to goodwill of 2.3 billion. The goodwill amounts are being amortized by the straight-line method over periods not exceeding 15 years.

Bayer CropScience AG, Monheim, acquired Aventis CropScience Holding S.A., France, effective June 1, 2002 from its previous owners Aventis S.A., France, and Schering AG, Berlin, Germany, for 7.8 billion, including the assumption of debt. Aventis CropScience is one of the leading companies in the areas of crop protection, biotechnology and agrochemical specialties. The 2.2 billion in acquired goodwill is being amortized over a useful life of 15 years.

Approval of this acquisition by the relevant antitrust authorities, particularly in Europe and the United States, was conditional upon Bayer's divesting or outlicensing a number of products with total sales of 650-700 million.

On October 11, 2002 Bayer Corporation, United States, acquired Visible Genetics Inc., Canada. The purchase price was 62 million. This acquisition gives the Diagnostics Business Group two automated DNA sequencing systems marketed under the tradename OpenGene and the TRUGENE HIV genotyping kits, which permit testing for resistance to HIV drugs. The acquired goodwill of 12 million is being amortized over an estimated useful life of 15 years.

Bayer acquired Tectrade A/S, Denmark, at the start of April 2002 for 19 million. Tectrade develops customized polyurethane formulations. The acquisition comprises further subsidiaries, a technical service center and a formulating plant. The acquired goodwill of 16 million is being amortized over 10 years.

Effective December 6, 2002 our U.S. subsidiary Bayer Corporation acquired two biocides thiazobenzodiazole and dibromodicyanobutane and certain patented formulations of these biocides from Onco Nalco Inc., United States for 14 million. The acquisition also includes the Tektamer®, Biochek® and Metasol® tradenames. The active substances acquired provide protection against microorganisms such as yeasts, fungi, bacteria and algae, which can impair the quality of products and functional fluids. The rights are being amortized over an estimated useful life of 10 years.

The following significant **divestitures** were made in 2002:

As part of the streamlining of the Bayer Group's portfolio, Bayer AG sold its wholly owned subsidiary Haarmann & Reimer GmbH, a manufacturer of flavors and fragrances based in Holzminden, Germany, including its subsidiaries, to the financial investor EQT Northern Europe Private Equity Funds, for 1.7 billion effective September 30, 2002. The divestiture of this business group, which is reflected in discontinuing operations, included not only the Haarmann & Reimer companies but also the Haarmann & Reimer business operations of several of Bayer's foreign subsidiaries.

The 30 percent interest in the Belgian imaging company Agfa-Gevaert N.V., which Bayer continued to hold after the stock market placement of the other 70 percent of the shares in 1999, was sold to the investment bank Goldman Sachs for 714 million at the start of June 2002.

Effective March 1, 2002 Bayer AG sold its 94.9 percent interest in Bayer Wohnungen GmbH to TreuHandStelle für Bergmannswohnstätten im rheinisch-westfälischen Steinkohlenbezirk GmbH for 528 million. In addition to this interest, the transaction included further land and buildings owned by Bayer Wohnungen GmbH.

As part of the continued streamlining of its portfolio, Bayer sold to SC Johnson & Son Inc., United States, a large part of the global household insecticides business of its Consumer Care Business Group for 386 million effective December 31, 2002. The operations sold at year end were those for which regulatory approval of the transactions had already been given. In addition to the affiliates in Indonesia and Barbados and the inventories,



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

SC Johnson has acquired the marketing rights to products such as Baygon®, Autan®, Bayclin® and Bayfresh®. Bayer will continue to manufacture the active ingredients for these products, which it will supply to SC Johnson and other customers. The divestment of the household insecticides in fiscal 2002 relates to Australia, Belgium, Brazil, Costa Rica, El Salvador, Guatemala, Hong Kong, Indonesia, Italy, the Philippines, South Africa and Spain. Closing of the transaction for the remaining countries is expected in the first quarter of 2003, pending the necessary approval by the relevant antitrust authorities.

In fiscal 2002, conditions set by the European antitrust authorities, the Federal Trade Commission (FTC) in the United States and the Canadian Competition Bureau for the acquisition of Aventis CropScience Holding S.A., France, were met. At the end of December 2002 the cereal herbicide Everest® was sold to Arvesta Corporation, which is headquartered in the United States, for 123 million, while the crop protection agent Goltix® and the exclusive marketing licenses for Herold® in Germany and Belgium were sold to Makhteshim-Agan Industries Ltd., Israel, for 138 million.

In fiscal 2002 the Bayer Group divested its French and Spanish generic pharmaceuticals operations as part of its drive to streamline the portfolio. Effective June 28, 2002 Bayer sold its stake in Bayer Classics S.A., France and the production site in Sens, via its French subsidiary Bayer Pharma France S.A., to the Israeli company Teva Pharmaceutical Industries Ltd. for 97 million. On April 17, 2002 Bayer sold its 50 percent interest in the Spanish generics company Bayvit S.A., Barcelona, which specializes in marketing and distribution, for 33 million. Bayer's stake and the remaining 50 percent, which was held by the privately owned company Vita Invest S.A., Spain, were acquired by STADA Arzneimittel AG, Bad Vilbel, Germany.

Acquisitions and divestitures of businesses affected the Group's assets and liabilities as of the dates of acquisition or divestiture as follows:

|  | Acquisitions  | Divestitures |
|--|---------------|--------------|
|  | ( Million)    |              |
| <b>2002</b>                              |               |              |
| Noncurrent assets                        | 6,449         | 537          |
| Current assets (excluding liquid assets) | 5,101         | 481          |
| Liquid assets                            | 353           | 29           |
| <b>Assets</b>                            | <b>11,903</b> | <b>1,047</b> |
| Pension provisions                       | 578           | 74           |
| Other provision                          | 133           | 47           |
| Financial obligations                    | 2,545         | 170          |
| Remaining liabilities                    | 2,725         | 124          |
| <b>Liabilities</b>                       | <b>5,981</b>  | <b>415</b>   |
|  | Acquisitions  | Divestitures |
|  | ( Million)    |              |
| <b>2001</b>                              |               |              |
| Noncurrent assets                        | 505           | 366          |
| Current assets (excluding liquid assets) | 18            | 357          |
| Liquid assets                            |               |              |
| <b>Assets</b>                            | <b>523</b>    | <b>723</b>   |
| Pension provisions                       |               | (88)         |
| Other provision                          | (1)           | (50)         |

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|                       |                   |                   |
|-----------------------|-------------------|-------------------|
| Financial obligations |                   | (5)               |
| Remaining liabilities | (8)               | (12)              |
|                       | <u>          </u> | <u>          </u> |
| <b>Liabilities</b>    | <b>(9)</b>        | <b>(155)</b>      |
|                       | <b>          </b> | <b>          </b> |

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

Lists of Bayer AG's direct and indirect holdings have been included in the Cologne commercial register. They also are available directly from Bayer AG on request.

The principle companies included in the consolidated financial statements are listed in the following table:

| Company Name and Place of Business                | Bayer's interest |
|---|------------------|
|   | (%)              |
| <b>Germany</b>                                    |                  |
| Bayer Buna GmbH, Marl                             | 100              |
| Bayer CropScience AG, Monheim                     | 100              |
| Bayer Distribution Service GmbH, Leverkusen       | 100              |
| Bayer Industrieprodukte GmbH & Co. KG, Leverkusen | 100              |
| Bayer Vital GmbH, Leverkusen                      | 100              |
| H.C. Starck GmbH, Goslar                          | 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 CropScience France S.A., France             | 100              |
| Bayer CropScience Holding S.A., France            | 100              |
| Bayer CropScience S.A., France                    | 100              |
| Bayer Hispania, S.A., Spain                       | 100              |
| Bayer International S.A., Switzerland             | 99.7             |
| Bayer Pharma S.A., France                         | 99.9             |
| Bayer plc, U.K.                                   | 100              |
| Bayer Rubber N.V., Belgium                        | 100              |
| Bayer S.A.S, France                               | 99.9             |
| Bayer S.p.A., Italy                               | 100              |
| Quimica Farmaceutica Bayer, S.A., Spain           | 100              |
| <b>North America</b>                              |                  |
| Bayer Corporation, United States                  | 100              |
| Bayer CropScience LP, United States               | 100              |
| Bayer CropScience Inc., Canada                    | 100              |
| Bayer Inc., Canada                                | 100              |
| <b>Asia/Pacific</b>                               |                  |
| Bayer (India) Ltd., India                         | 55.3             |
| Bayer (South East Asia) Pte Ltd., Singapore       | 100              |
| Bayer Australia Ltd., Australia                   | 99.9             |
| Bayer China Co. Ltd., Hong Kong                   | 99.3             |
| Bayer CropScience K.K., Japan                     | 100              |
| Bayer Ltd., Japan                                 | 100              |
| Bayer Polymers Co. Ltd., Hong Kong                | 100              |
| Bayer Yakuhin Ltd., Japan                         | 100              |
| Sumika Bayer Urethane Co., Ltd., Japan            | 60               |

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

| Company Name and Place of Business      | Bayer's interest |
|---|------------------|
|   | (%)              |
| <b>Latin America/Africa/Middle East</b> |                  |
| Bayer (Proprietary) Ltd., South Africa  | 100              |
| Bayer CropScience Brasil S.A., Brazil   | 100              |
| Bayer de México, S.A. de C.V., Mexico   | 100              |
| Bayer S.A., Argentina                   | 99.9             |
| Bayer S.A., Brazil                      | 99.9             |

The following domestic subsidiaries availed themselves in 2002 of certain exemptions granted under Articles 264, paragraph 3 and 264 b, No. 4 of the German Commercial Code regarding the preparation, auditing and publication of financial statements: Bayer Distribution Service GmbH, Leverkusen; Bayer-Kaufhaus GmbH, Leverkusen; Bayer Polymers Customer Services GmbH & Co. KG, Leverkusen; Generics Holding GmbH, Leverkusen; Bayer Innovation GmbH, Leverkusen; Bayer Kautschuk GmbH, Dormagen; Bayer Handelsges. mbH, Leverkusen; Bayer Buna GmbH, Marl; KVP Pharma + Veterinär Produkte GmbH, Kiel; Euroservices Bayer GmbH, Leverkusen; Travelboard GmbH, Leverkusen; Chemion Logistik GmbH, Leverkusen; Bayer Restaurant + Service GmbH, Leverkusen; Bayer Industrieprodukte GmbH & Co. KG, Leverkusen; Bayer Bitterfeld GmbH, Greppin; IAB Ionenaustauscher GmbH, Greppin; Wolff Walsrode AG, Walsrode; Probis GmbH, Bomlitz; Walothern GmbH, Bomlitz; Wolff Cellulosics KG, Bomlitz; Epurex Films KG, Bomlitz, and CaseTech KG, Bomlitz.

**Foreign currency translation**

The financial statements for 2002 are drawn up in euros (€).

In the financial statements of the individual consolidated companies, foreign currency receivables and payables are translated at closing rates, irrespective of whether they are exchange-hedged. Forward contracts that, from an economic point of view, serve as a hedge against fluctuations in exchange rates are stated at fair value.

The majority of consolidated companies outside the euro zone 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 company outside the euro zone 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.

Companies operating in hyperinflationary economies prepare their statements in hard currency and thus, in effect, by the temporal method described above.

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.



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

The exchange rates for major currencies against the euro varied as follows:

|             |     | Closing rate |        |        | Average rate |        |       |
|-------------|-----|--------------|--------|--------|--------------|--------|-------|
|             |     | 2002         | 2001   | 2000   | 2002         | 2001   | 2000  |
|             |     | ( 1)         |        |        |              |        |       |
| U.S.A.      | USD | 1.05         | 0.88   | 0.93   | 0.95         | 0.90   | 0.93  |
| U.K.        | GBP | 0.65         | 0.61   | 0.62   | 0.63         | 0.62   | 0.61  |
| Japan       | JPY | 124.39       | 115.33 | 106.92 | 118.06       | 108.74 | 99.74 |
| Canada      | CAD | 1.66         | 1.41   | 1.40   | 1.48         | 1.39   | 1.37  |
| Switzerland | CHF | 1.45         | 1.48   | 1.52   | 1.47         | 1.51   | 1.56  |

**Consolidation methods**

Capital consolidation is performed according to IAS 22 (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.

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.

Joint ventures are included by proportionate consolidation according to the same principles.

The consolidated financial statements include the accounts of those material subsidiaries in which Bayer AG is able to exercise operational control, generally through an ownership interest greater than 50 percent.

The equity method is used to account for investments in material entities in which Bayer AG exerts significant influence, generally through an ownership interest between 20 and 50 percent.

Intercompany profits and losses on transactions with companies included at equity were immaterial in 2002 and 2001.

**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 in the scope of consolidation are eliminated. Cash flows are classified by operating, investing and financing activities in accordance with IAS 7 (Cash Flow Statements). Cash and cash equivalents shown in the balance sheet comprise cash, checks, balances with banks and securities with original maturities of up to three months. 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 Statements of Income**

[1] Net sales

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Sales are recognized upon delivery of goods or rendering of services to third parties and are reported net of sales taxes and rebates. Revenues from contracts that contain customer acceptance provisions are deferred until customer acceptance occurs or the contractual acceptance period has lapsed. Allocations to provisions for rebates

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

to customers are recognized in the period in which the related sales are recorded based on the contract terms. Payments relating to the sale or outlicensing of technologies or technological expertise once the respective agreements have become effective are immediately recognized in income if all rights to the technologies and all obligations resulting from them have been relinquished under the contract terms. However, if rights to the technologies continue to exist or obligations resulting from them have yet to be fulfilled, the payments received are recorded in line with the actual circumstances.

Total reported sales declined by 651 million compared with 2001, to 29,624 million (2001: 30,275 million; 2000: 30,971 million). Sales from continuing operations were 212 million lower than in 2001 and amounted to 28,958 million (2001: 29,170 million; 2000: 29,121 million). In 2002, a 54 million increase in volumes was offset by negative contributions of 715 million from lower selling prices and 1,421 million from adverse shifts in exchange rates. The net effect of acquisitions and divestitures raised sales by 1,870 million. Acquisitions and divestitures during 2002 and 2001 affected the comparison between the two years' sales figures by the following amounts:

| 2002  | million             |
|---|---------------------|
| <b>Acquisitions</b>                                   |                     |
| Aventis CropScience Holding S.A., Lyon, France        | 1,977               |
| Tectrade A/S, Copenhagen, Denmark                     | 12                  |
| Other   | 3                   |
|   | <u>1,992</u>        |
| <b>Divestitures</b>                                   |                     |
| ChemDesign Corporation (divested in 2001)             | (56)                |
| Covexx Films (divested in 2001)                       | (42)                |
| Sale of the generics business                         | (16)                |
| Other   | (8)                 |
|   | <u>(122)</u>        |
| <b>Net effect on sales from continuing operations</b> | <b><u>1,870</u></b> |

While total reported sales declined 2001 by 696 million, to 30,275 million, sales from continuing operations increased by 49 million to 29,170 million. A 1,168 million decrease due to lower volumes was offset by positive contributions of 274 million from higher selling prices, 84 million from favorable shifts in exchange rates and 859 million from the net effect of acquisitions and divestitures. Acquisitions and divestitures during 2001 and 2000 affected the comparison between the two years' sales figures by the following amounts:

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| 2001  | million    |
|---|------------|
| <b>Acquisitions</b>   |            |
| Sybron Chemicals Inc. (polymers and specialty chemicals) (acquired in 2000)   | 206        |
| Polyols business of Lyondell Chemical Company (acquired in 2000)              | 202        |
| CSM Group (acquired in 2000)  | 133        |
| Fungicide product lines, primarily FLINT (acquired in 2000)                   | 104        |
| Full consolidation of Sumika Bayer Urethane Co. Ltd., Japan                   | 99         |
| Paper chemicals business of Cytec Industries Inc. (acquired in 2000)          | 83         |
| MIKADO corn herbicide   | 46         |
| Other   | 110        |
|   | <hr/>      |
|   | 983        |
|   | <hr/>      |
| <b>Divestitures</b>   |            |
| Covexx Films  | (61)       |
| U.S. livestock vaccines business to Intervet International (divested in 2000) | (30)       |
| Other   | (33)       |
|   | <hr/>      |
|   | (124)      |
|   | <hr/>      |
| <b>Net effect an sales from continuing operations</b>                         | <b>859</b> |
|   | <hr/>      |

2000 sales increased by 3,651 million compared with 1999, to 30,971 million. Sales from continuing operations advanced by 5,158 million, to 29,121 million. The increase in 2000 comprised 1,684 million from higher volumes, 568 million from improvement in selling prices, 2,158 million from favorable shifts in exchange rates and 748 million from the net positive effect of acquisitions and investitures. Acquisition and divestitures during 2000 and 1999 affected the comparison between the two years-sales figures by the following amounts:

| 2000  | million    |
|---|------------|
| <b>Acquisitions</b>   |            |
| Polyols Business (from Lyondell)  | 646        |
| Plastic sheet Business (from DSM an 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         |
|   | <hr/>      |
|   | 833        |
|   | <hr/>      |
| <b>Divestitures</b>   |            |
| U.S. livestock vaccines Business to Intervet International                | (27)       |
| Troponwerke GmbH & Co. KG   | (24)       |
| Other   | (34)       |
|   | <hr/>      |
|   | (85)       |
|   | <hr/>      |
| <b>Net effect on sales from continuing operations</b>                     | <b>748</b> |
|   | <hr/>      |
| Sale of 70 percent of the shares of the Agfa-Gevaert group (May 31, 1999) | (1,801)    |
|   | <hr/>      |
|   | (1,053)    |

**[2] Selling expenses**

Selling expenses include 797 million (2001: 789 million; 2000: 796 million) in shipping and handling costs.

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They also include advertising and promotion costs, expensed in the period in which they are incurred. These costs amount to 1,051 million (2001: 1,392 million; 2000: 1,336 million).

**[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**

Other operating income from continuing operations in 2002 arose mainly from portfolio adjustments and the fulfillment of conditions imposed by the antitrust authorities in connection with the acquisition of Aventis CropScience Holding S.A., France. The divestitures of Bayer Wohnungen GmbH, the household insecticides business of the Consumer Care Business Group, certain CropScience trademarks, the generics operations of the Pharmaceuticals Business Group and the sale of other noncurrent assets generated a total gain of 1,106 million (2001: 74 million; 2000: 75 million). A further 154 million (2001: 68 million; 2000: 85 million) came from reversals of unutilized provisions and 56 million (2001: 24 million; 2000: 25 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 in 2002 are 101 million (2001: 91 million; 2000: 37 million) in write-downs of receivables, 189 million (2001: 94 million, 2000: 77 million) in amortization of acquired goodwill and 42 million (2001: 15 million; 2000: 26 million) in losses from the sale of property, plant and equipment. In particular, impairment write-downs of intangible assets, property, plant and equipment of the polyols and fibers operations in the Polymers business area together accounted for expenses of 289 million. In addition, 427 million (2001: 214 million; 2000: 200 million) was spent on restructuring. Further details of restructuring expenses are given in Note 29.

**[6] Discontinuing operations**

As part of its reorganization Bayer divested the Haarmann & Reimer Business Group effective September 30, 2002 as it defined these activities as non-core. Thus it sold the wholly owned subsidiary Haarmann & Reimer GmbH, a manufacturer of fragrances and flavors based in Holzminden, Germany, to EQT Northern Europe Private Equity Funds. The operating result of this business for the period of 2002 up to the date of divestiture is therefore reflected in the operating result from discontinuing operations. This item also contains the gain from the divestiture recognized in 2002 income.

The remaining operations of the Fibers business group, including the production facilities for Dorlastan® spandex fibers and Perlon® monofil at three sites Dormagen and Goch, Germany, and Bushy Park, South Carolina, U.S.A. are continuing as part of the Bayer Group and accordingly are reflected in continuing operations. The previous years' figures have been restated accordingly.

Effective May 1, 2001 Bayer sold its 50 percent interest in EC Erdölchemie GmbH, Cologne, Germany, to its former partner Deutsche BP AG, Hamburg, Germany. The operating result of this business for the period of 2001 up to the date of divestiture was therefore reflected in the operating result from discontinuing operations. This item also contained the gain from the sale of the 50 percent interest recognized in 2001 income.

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The non-operating results and the income taxes attributable to Haarmann & Reimer and Erdölchemie are reflected in the corresponding items of the income statement.

The non-operating results and the income taxes attributable to Haarmann & Reimer, Erdölchemie, DyStar and Agfa are reflected in the corresponding items of the income statement.

A breakdown of the results of discontinuing operations is given below.

|   | Erdölchemie |       | Haarmann & Reimer |       |       | Dystar |      |       | Agfa | Total |       |         |
|---|-------------|-------|-------------------|-------|-------|--------|------|-------|------|-------|-------|---------|
|   | 2001        | 2000  | 2002              | 2001  | 2000  | 2002   | 2001 | 2000  | 2000 | 2002  | 2001  | 2000    |
|   | ( million)  |       |                   |       |       |        |      |       |      |       |       |         |
| <b>Net sales</b>                                      | 233         | 635   | 666               | 872   | 865   |        |      | 350   |      | 666   | 1,105 | 1,850   |
| Cost of goods sold                                    | (196)       | (481) | (376)             | (481) | (489) |        |      | (223) |      | (376) | (677) | (1,193) |
| Selling expenses                                      | (16)        | (45)  | (147)             | (199) | (197) |        |      | (68)  |      | (147) | (215) | (310)   |
| Research and development expenses                     | 0           | (2)   | (45)              | (63)  | (54)  |        |      | (9)   |      | (45)  | (63)  | (65)    |
| General administration expenses                       | (3)         | (9)   | (27)              | (38)  | (39)  |        |      | (21)  |      | (27)  | (41)  | (69)    |
| Other operating income                                | 316         | 7     | 938               | 23    | 14    |        |      | 6     |      | 938   | 339   | 27      |
| Other operating expenses                              | (1)         | (6)   | (29)              | (41)  | (32)  |        |      | (30)  |      | (29)  | (42)  | (68)    |
| <b>Operating result from discontinuing operations</b> | 333         | 99    | 980               | 73    | 68    |        |      | 5     |      | 980   | 406   | 172     |
| Non-operating result                                  | (1)         | (1)   | (11)              | (4)   | (6)   |        |      | (18)  |      | (11)  | (5)   | (25)    |
| Equity-method income (loss)                           |             |       |                   |       |       | 10     | 6    |       | 72   | 10    | 6     | 72      |
| <b>Income (Loss) before income taxes</b>              | 332         | 98    | 969               | 69    | 62    | 10     | 6    | (13)  | 72   | 979   | 407   | 219     |
| Income taxes  | (6)         | 0     | (15)              | (35)  | (30)  | (2)    | (3)  | 1     | (26) | (17)  | (44)  | (55)    |
| <b>Income (Loss) after taxes</b>                      | 326         | 98    | 954               | 34    | 32    | 8      | 3    | (12)  | 46   | 962   | 363   | 164     |

**[7] Operating result**

In accordance with IAS 14 (Segment Reporting), a breakdown of certain data in the financial statements is given by segment and geographical region. The segments and regions are the same as those used for internal reporting, allowing a reliable assessment of risks and returns. 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 Bayer Group is managed on the basis of business groups, currently aggregated into the seven reportable segments listed below according to economic characteristics, products, production processes, customer relationships and methods of distribution. These segments, in turn, are grouped together into the four business areas shown.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

The segments shown as continuing operations embrace the following activities:

| Segment                              | Activity   |
|--------------------------------------|--|
| <b>Healthcare</b>                    |  |
| Pharmaceuticals, Biological Products | Development and marketing of prescription pharmaceuticals  |
| Consumer Care, Diagnostics           | Development and marketing of over-the-counter medications, nutritional supplements, insecticides and insect repellents and diagnostic products for central laboratory, near patient testing, and self-testing applications |
| Animal Health                        | Development and marketing of veterinary medicines, nutritionals and grooming products for companion animals and livestock  |
| <b>CropScience</b>                   |  |
| CropScience                          | Development and marketing of insecticides, fungicides and herbicides for all climate zones; biotechnology and agrochemical specialities  |
| <b>Polymers</b>                      |  |
| Plastics, Rubber                     | Manufacturing and marketing of engineering plastics and a variety of raw materials for the rubber and tire industries  |
| Polyurethanes, Coatings, Fibers      | Development, manufacturing and marketing of range of polyurethane raw materials for a wide variety of applications, as well as coating and adhesive raw materials and colorants  |
| <b>Chemicals</b>                     |  |
| Chemicals                            | Manufacture and marketing of bulk and specialty chemicals, metal and ceramic powders and cellulose derivatives   |

The reconciliation eliminates intersegment items and reflects income and expenses not allocable to segments, such as corporate costs, and revenues and expenses from sideline operations. It also reflects non-allocable assets and liabilities.

Business activities that Bayer has already divested or intends to divest are shown as discontinuing operations. These are Haarmann & Reimer and, in 2001, Erdölchemie and in 2000, DyStar.

The segment data are calculated as follows:

The intersegment and interregional sales reflect intragroup transactions effected at transfer prices fixed on an arm's-length basis.

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. The operating result before exceptional items is therefore 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 charged to the operating result; the income reflected in exceptional items was realized mainly from divestments.

The return on sales is the ratio of the operating result after 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 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.





**Table of Contents****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 segments where possible. The reconciliation of equity-method income to the income statement line Income from investments in affiliated companies net is apparent from Note 8.

Capital expenditures, amortization and depreciation relate to intangible assets, property, plant and equipment.

**Key Data by Business Segment**

| Business Segments                                 | Pharmaceuticals,<br>Biological<br>Products |        | Consumer<br>Care,<br>Diagnostics |        | Animal<br>Health |        | Crop<br>Science |        | Plastics,<br>Rubber |        | Polyurethanes,<br>Coatings,<br>Fibers |        | Chemicals |        |
|---|--|--------|----------------------------------|--------|------------------|--------|-----------------|--------|---------------------|--------|---------------------------------------|--------|-----------|--------|
|   | 2002                                       | 2001   | 2002                             | 2001   | 2002             | 2001   | 2002            | 2001   | 2002                | 2001   | 2002                                  | 2001   | 2002      | 2001   |
|   | ( Million)                                 |        |                                  |        |                  |        |                 |        |                     |        |                                       |        |           |        |
| Net sales (external)                              | 4,767                                      | 5,729  | 3,755                            | 4,104  | 850              | 858    | 4,697           | 2,838  | 5,378               | 5,581  | 5,397                                 | 5,439  | 3,304     | 3,749  |
| Change in   | (16.8%)                                    | (6.7%) | (8.5%)                           | 5.6%   | (0.9%)           | (1.7%) | 65.5%           | 9.9%   | (3.6%)              | (4.0%) | (0.8%)                                | (2.6%) | (11.9%)   | 9.9%   |
| Change in local<br>currencies                     | (11.7%)                                    | (6.7%) | (1.4%)                           | 5.0%   | 5.4%             | (1.7%) | 74.9%           | 10.2%  | (0.7%)              | (5.0%) | 3.4%                                  | (3.1%) | (5.7%)    | 10.0%  |
| Intersegment sales                                | 33   | 38     | 2                                | 2      | 1                | 4      | 90              | 102    | 115                 | 116    | 78                                    | 138    | 409       | 456    |
| Other operating<br>income                         | 124  | 62     | 329                              | 49     | 10               | 13     | 339             | 102    | 84                  | 87     | 64                                    | 52     | 49        | 53     |
| Operating result<br>before exceptional<br>items   | 151  | 383    | 408                              | 388    | 180              | 161    | (15)            | 464    | 175                 | 288    | 243                                   | 129    | 160       | 271    |
| Return on sales<br>before exceptional<br>items    | 3.2%                                       | 6.7%   | 10.9%                            | 9.5%   | 21.2%            | 18.8%  | (0.3%)          | 16.3%  | 3.3%                | 5.2%   | 4.5%                                  | 2.4%   | 4.8%      | 7.2%   |
| Exceptional items                                 | (339)                                      | (332)  | 193                              | (47)   | (11)             | 0      | (107)           | 0      | (102)               | (50)   | (448)                                 | (120)  | (26)      | (68)   |
| Operating result                                  | (188)                                      | 51     | 601                              | 341    | 169              | 161    | (122)           | 464    | 73                  | 238    | (205)                                 | 9      | 134       | 203    |
| Return on sales<br>including<br>exceptional items | (3.9%)                                     | 0.9%   | 16.0%                            | 8.3%   | 19.9%            | 18.8%  | (2.6%)          | 16.3%  | 1.4%                | 4.3%   | (3.8%)                                | 0.2%   | 4.1%      | 5.4%   |
| Gross cash flow                                   | 1  | 229    | 827                              | 534    | 182              | 153    | 502             | 560    | 419                 | 587    | 714                                   | 606    | 375       | 379    |
| Capital invested                                  | 4,095                                      | 5,352  | 3,152                            | 3,799  | 592              | 579    | 10,085          | 3,950  | 5,771               | 6,405  | 7,750                                 | 8,496  | 3,987     | 4,774  |
| CFROI   | 0.0%                                       | 4.2%   | 23.9%                            | 13.9%  | 30.4%            | 24.3%  | 6.4%            | 13.9%  | 6.8%                | 8.9%   | 8.9%                                  | 7.0%   | 8.6%      | 7.7%   |
| Net cash flow                                     | 484  | 343    | 951                              | 576    | 140              | 190    | 1,212           | 428    | 459                 | 954    | 746                                   | 1,016  | 465       | 399    |
| Equity-method<br>income                           | 0  | 0      | 0                                | 0      | 0                | 0      | 0               | 0      | 0                   | 0      | (3)                                   | 0      | 1         | 0      |
| Equity-method<br>investments                      | 16   | 16     | 0                                | 0      | 0                | 0      | 0               | 0      | 10                  | 27     | 728                                   | 773    | 14        | 13     |
| Total assets                                      | 4,221                                      | 5,303  | 3,352                            | 3,956  | 637              | 734    | 13,462          | 3,488  | 5,165               | 5,867  | 5,912                                 | 7,722  | 3,500     | 4,216  |
| Capital<br>expenditures                           | 178  | 375    | 272                              | 238    | 26               | 45     | 297             | 199    | 504                 | 536    | 506                                   | 468    | 285       | 444    |
| Amortization and<br>depreciation                  | 349  | 364    | 340                              | 291    | 50               | 40     | 628             | 247    | 436                 | 482    | 1,001                                 | 639    | 298       | 334    |
| Liabilities                                       | 2,130                                      | 1,869  | 1,236                            | 1,271  | 304              | 379    | 2,944           | 1,130  | 1,377               | 1,339  | 1,615                                 | 2,385  | 1,315     | 1,797  |
| Research and<br>development<br>expenses           | 1,072                                      | 1,242  | 235                              | 252    | 80               | 91     | 598             | 299    | 125                 | 134    | 173                                   | 194    | 100       | 114    |
| Number of<br>employees (as of<br>Dec. 31)         | 25,900                                     | 26,800 | 14,700                           | 14,900 | 3,400            | 3,900  | 23,000          | 10,900 | 17,100              | 17,900 | 15,500                                | 16,100 | 17,800    | 19,500 |

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

| Business Segments                           | Reconciliation |       | Continuing Operations |         | Discontinuing Operations |       | Bayer Group |         |
|---|----------------|-------|-----------------------|---------|--------------------------|-------|-------------|---------|
|   | 2002           | 2001  | 2002                  | 2001    | 2002                     | 2001  | 2002        | 2001    |
| Net sales (external)                        | 810            | 872   | 28,958                | 29,170  | 666                      | 1,105 | 29,624      | 30,275  |
| Change in                                   |                |       | (0.7%)                | 0.2%    |                          |       | (2.2%)      | (2.2%)  |
| Change in local currencies                  |                |       | 4.2%                  | (0.1%)  |                          |       | 2.6%        | (2.5%)  |
| Intersegment sales                          | (728)          | (856) |                       |         |                          |       |             |         |
| Other operating income                      | 733            | 63    | 1,732                 | 481     | 5                        | 339   | 1,737       | 820     |
| Operating result before exceptional items   | (313)          | (246) | 989                   | 1,838   | 47                       | 93    | 1,036       | 1,931   |
| Return on sales before exceptional items    |                |       | 3.4%                  | 6.3%    |                          |       | 3.5%        | 6.4%    |
| Exceptional items                           | 445            | (16)  | (395)                 | (633)   | 933                      | 313   | 538         | (320)   |
| Operating result                            | 132            | (262) | 594                   | 1,205   | 980                      | 406   | 1,574       | 1,611   |
| Return on sales including exceptional items |                |       | 2.1%                  | 4.1%    |                          |       | 5.3%        | 5.3%    |
| Gross cash flow                             | (85)           | (230) | 2,935                 | 2,818   | 77                       | 105   | 3,012       | 2,923   |
| Capital invested                            | 1,280          | 556   | 36,712                | 33,911  | 0                        | 947   | 36,712      | 34,858  |
| CFROI                                       |                |       | 8.0%                  | 8.2%    |                          |       | 8.1%        | 8.2%    |
| Net cash flow                               | (124)          | (177) | 4,333                 | 3,729   | 87                       | 130   | 4,420       | 3,859   |
| Equity-method income                        | 4              | 12    | 2                     | 12      | 3                        | 14    | 5           | 26      |
| Equity-method investments                   | 157            | 158   | 925                   | 987     | 170                      | 179   | 1,095       | 1,166   |
| Total assets                                | 5,443          | 4,933 | 41,692                | 36,219  | 0                        | 820   | 41,692      | 37,039  |
| Capital expenditures                        | 315            | 255   | 2,383                 | 2,560   | 0                        | 57    | 2,383       | 2,617   |
| Amortization and depreciation               | 163            | 41    | 3,265                 | 2,438   | 48                       | 78    | 3,313       | 2,516   |
| Liabilities                                 | 15,316         | 9,616 | 26,237                | 19,786  | 0                        | 233   | 26,237      | 20,019  |
| Research and development expenses           | 149            | 170   | 2,532                 | 2,496   | 45                       | 63    | 2,577       | 2,559   |
| Number of employees (as of Dec. 31)         | 5,200          | 3,000 | 122,600               | 113,000 | 0                        | 3,900 | 122,600     | 116,900 |

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****Key Data by Business Segment**

| Business Segments                                 | Pharmaceuticals,<br>Biological<br>Products |        | Consumer Care,<br>Diagnostics |        | Animal Health |        | Crop Science |        | Plastics,<br>Rubber |        | Polyurethanes,<br>Coatings,<br>Fibers |        | Chemicals |        |
|---|--|--------|-------------------------------|--------|---------------|--------|--------------|--------|---------------------|--------|---------------------------------------|--------|-----------|--------|
|   | 2001                                       | 2000   | 2001                          | 2000   | 2001          | 2000   | 2001         | 2000   | 2001                | 2000   | 2001                                  | 2000   | 2001      | 2000   |
| ( Million)  |  |        |                               |        |               |        |              |        |                     |        |                                       |        |           |        |
| Net sales (external)                              | 5,729                                      | 6,140  | 4,104                         | 3,888  | 858           | 873    | 2,838        | 2,582  | 5,581               | 5,816  | 5,439                                 | 5,582  | 3,749     | 3,410  |
| Change in   | (6.7%)                                     | 22.7%  | 5.6%                          | 15.6%  | (1.7%)        | 6.9%   | 9.9%         | 13.4%  | (4.0%)              | 25.7%  | (2.6%)                                | 30.0%  | 9.9%      | 19.4%  |
| Change in local<br>currencies                     | (6.7%)                                     | 11.9%  | 5.0%                          | 5.4%   | (1.7%)        | (1.4%) | 10.2%        | 3.9%   | (5.0%)              | 19.5%  | (3.1%)                                | 23.4%  | 10.0%     | 13.3%  |
| Intersegment sales                                | 38   | 39     | 2                             | 0      | 4             | 6      | 102          | 97     | 116                 | 122    | 138                                   | 462    | 456       | 466    |
| Other operating<br>income                         | 62   | 90     | 49                            | 51     | 13            | 41     | 102          | 38     | 87                  | 28     | 52                                    | 37     | 53        | 35     |
| Operating result<br>before<br>exceptional items   | 383  | 1,165  | 388                           | 311    | 161           | 148    | 464          | 410    | 288                 | 560    | 129                                   | 577    | 271       | 370    |
| Return on sales<br>before<br>exceptional items    | 6.7%                                       | 19.0%  | 9.5%                          | 8.0%   | 18.8%         | 17.0%  | 16.3%        | 15.9%  | 5.2%                | 9.6%   | 2.4%                                  | 10.3%  | 7.2%      | 10.9%  |
| Exceptional items                                 | (332)                                      | (5)    | (47)                          | (134)  | 0             | 25     | 0            | 1      | (50)                | (45)   | (120)                                 | (53)   | (68)      | 24     |
| Operating result                                  | 51   | 1,160  | 341                           | 177    | 161           | 173    | 464          | 411    | 238                 | 515    | 9                                     | 524    | 203       | 394    |
| Return on sales<br>including<br>exceptional items | 0.9%                                       | 18.9%  | 8.3%                          | 4.6%   | 18.8%         | 19.8%  | 16.3%        | 15.9%  | 4.3%                | 8.9%   | 0.2%                                  | 9.4%   | 5.4%      | 11.6%  |
| Gross cash flow                                   | 229  | 1,048  | 534                           | 371    | 153           | 146    | 560          | 411    | 587                 | 801    | 606                                   | 828    | 379       | 497    |
| Capital invested                                  | 5,352                                      | 5,267  | 3,799                         | 3,650  | 579           | 632    | 3,950        | 3,756  | 6,405               | 6,456  | 8,496                                 | 8,522  | 4,774     | 4,665  |
| CFROI   | 4.2%                                       | 21.3%  | 13.9%                         | 10.4%  | 24.3%         | 19.7%  | 13.9%        | 14.2%  | 8.9%                | 12.7%  | 7.0%                                  | 10.9%  | 7.7%      | 11.0%  |
| Net cash flow                                     | 343  | 906    | 576                           | 320    | 190           | 207    | 428          | 200    | 954                 | 403    | 1,016                                 | 707    | 399       | 392    |
| Equity-method<br>income                           | 0  | 0      | 0                             | 0      | 0             | 0      | 0            | 0      | 0                   | (1)    | 0                                     | 0      | 0         | 5      |
| Equity-method<br>Investments                      | 16   | 20     | 0                             | 0      | 0             | 0      | 0            | 0      | 27                  | 23     | 773                                   | 616    | 13        | 18     |
| Total assets                                      | 5,303                                      | 5,291  | 3,956                         | 3,480  | 734           | 768    | 3,488        | 3,218  | 5,867               | 6,176  | 7,722                                 | 7,901  | 4,216     | 4,421  |
| Capital expenditures                              | 375  | 482    | 238                           | 167    | 45            | 42     | 199          | 194    | 536                 | 556    | 468                                   | 338    | 444       | 358    |
| Amortization and<br>depreciation                  | 364  | 272    | 291                           | 257    | 40            | 38     | 247          | 144    | 482                 | 445    | 639                                   | 515    | 334       | 292    |
| Liabilities                                       | 1,869                                      | 2,202  | 1,271                         | 1,158  | 379           | 337    | 1,130        | 947    | 1,339               | 1,696  | 2,385                                 | 1,906  | 1,797     | 1,813  |
| Research and<br>development<br>expenses           | 1,242                                      | 1,096  | 252                           | 266    | 91            | 94     | 299          | 276    | 134                 | 128    | 194                                   | 160    | 114       | 105    |
| Number of<br>employees (as of<br>Dec. 31)         | 26,800                                     | 27,200 | 14,900                        | 15,100 | 3,900         | 3,900  | 10,900       | 11,000 | 17,900              | 18,500 | 16,100                                | 17,700 | 19,500    | 20,500 |

| Business Segments                            | Reconciliation |         | Continuing<br>Operations |        | Discontinuing<br>Operations |       | Bayer Group |        |
|--|----------------|---------|--------------------------|--------|-----------------------------|-------|-------------|--------|
|  | 2001           | 2000    | 2001                     | 2000   | 2001                        | 2000  | 2001        | 2000   |
| Net sales (external)                         | 872            | 830     | 29,170                   | 29,121 | 1,105                       | 1,850 | 30,275      | 30,971 |
| Change in                                    |                |         | 0.2%                     | 21.5%  |                             |       | (2.2%)      | 13.4%  |
| Change in local currencies                   |                |         | (0.1%)                   | 12.2%  |                             |       | (2.5%)      | 4.5%   |
| Intersegment sales                           | (856)          | (1,192) |                          |        |                             |       |             |        |
| Other operating income                       | 63             | 100     | 481                      | 420    | 339                         | 42    | 820         | 462    |
| Operating result before exceptional<br>items | (246)          | (273)   | 1,838                    | 3,268  | 93                          | 188   | 1,931       | 3,456  |

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|   |       |       |         |         |       |       |         |         |
|---|-------|-------|---------|---------|-------|-------|---------|---------|
| Return on sales before exceptional items    |       |       | 6.3%    | 11.2%   |       |       | 6.4%    | 11.2%   |
| Exceptional items                           | (16)  | 34    | (633)   | (153)   | 313   | (16)  | (320)   | (169)   |
| Operating result                            | (262) | (239) | 1,205   | 3,115   | 406   | 172   | 1,611   | 3,287   |
| Return on sales including exceptional items |       |       | 4.1%    | 10.7%   |       |       | 5.3%    | 10.6%   |
| Gross cash flow                             | (230) | (182) | 2,818   | 3,920   | 105   | 244   | 2,923   | 4,164   |
| Capital invested                            | 556   | 442   | 33,911  | 33,390  | 947   | 1,672 | 34,858  | 35,062  |
| CFROI                                       |       |       | 8.2%    | 12.6%   |       |       | 8.2%    | 12.7%   |
| Net cash flow                               | (177) | (241) | 3,729   | 2,894   | 130   | 197   | 3,859   | 3091    |
| Equity-method income                        | 12    | (5)   | 12      | (1)     | 14    | 72    | 26      | 71      |
| Equity-method investments                   | 158   | 182   | 987     | 859     | 179   | 487   | 1,166   | 1,346   |
| Total assets                                | 4,933 | 3,534 | 36,219  | 34,789  | 820   | 1,662 | 37,039  | 36,451  |
| Capital expenditures                        | 255   | 380   | 2,560   | 2,517   | 57    | 129   | 2,617   | 2,646   |
| Amortization and depreciation               | 41    | 74    | 2,438   | 2,037   | 78    | 102   | 2,516   | 2,139   |
| Liabilities                                 | 9,616 | 9,364 | 19,786  | 19,423  | 233   | 651   | 20,019  | 20,074  |
| Research and development expenses           | 170   | 203   | 2,496   | 2,328   | 63    | 65    | 2,559   | 2,393   |
| Number of employees (as of Dec. 31)         | 3,000 | 1,600 | 113,000 | 115,500 | 3,900 | 6,600 | 116,900 | 122,100 |

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****Key Data by Business Region**

| Regions                   | Europe |        |        | North America |        |        | Asia/Pacific |        |        | Latin America/<br>Africa/ Middle East |        |        |
|---------------------------|--------|--------|--------|---------------|--------|--------|--------------|--------|--------|---------------------------------------|--------|--------|
|                           | 2002   | 2001   | 2000   | 2002          | 2001   | 2000   | 2002         | 2001   | 2000   | 2002                                  | 2001   | 2000   |
| ( Million)                |        |        |        |               |        |        |              |        |        |                                       |        |        |
| Net sales (external)      |        |        |        |               |        |        |              |        |        |                                       |        |        |
| by market                 | 11,970 | 11,794 | 11,557 | 8,863         | 9,527  | 9,419  | 4,794        | 4,675  | 4,873  | 3,331                                 | 3,174  | 3,272  |
| Net sales (external)      |        |        |        |               |        |        |              |        |        |                                       |        |        |
| by point of origin        | 13,537 | 13,151 | 13,326 | 8,992         | 9,875  | 9,785  | 3,927        | 3,819  | 3,763  | 2,502                                 | 2,325  | 2,247  |
| Change in                 | 2.9%   | (1.3%) | 12.0%  | (8.9%)        | 0.9%   | 29.4%  | 2.8%         | 1.5%   | 42.2%  | 7.6%                                  | 3.5%   | 20.7%  |
| Change in local           |        |        |        |               |        |        |              |        |        |                                       |        |        |
| currencies                | 3.0%   | (1.4%) | 11.5%  | (3.5%)        | (2.1%) | 13.9%  | 8.4%         | 7.3%   | 26.4%  | 35.1%                                 | 2.6%   | 7.9%   |
| Interregional sales       | 3,181  | 3,157  | 3,036  | 1,961         | 1,946  | 1,633  | 227          | 227    | 229    | 139                                   | 116    | 101    |
| Other operating income    | 1,464  | 313    | 251    | 91            | 70     | 62     | 88           | 48     | 64     | 89                                    | 50     | 43     |
| Operating result before   |        |        |        |               |        |        |              |        |        |                                       |        |        |
| exceptional items         | 537    | 1,709  | 2,269  | 133           | 3      | 734    | 174          | 242    | 404    | 369                                   | 219    | 213    |
| Return on sales before    |        |        |        |               |        |        |              |        |        |                                       |        |        |
| exceptional items         | 4.0%   | 13.0%  | 17.0%  | 1.5%          | 0.0%   | 7.5%   | 4.4%         | 6.3%   | 10.7%  | 14.7%                                 | 9.4%   | 9.5%   |
| Exceptional items         | 404    | (289)  | 12     | (832)         | (281)  | (144)  | 12           | (14)   | (21)   | 21                                    | (30)   | 0      |
| Operating result          | 941    | 1,420  | 2,281  | (699)         | (278)  | 590    | 186          | 228    | 383    | 390                                   | 189    | 213    |
| Return on sales including |        |        |        |               |        |        |              |        |        |                                       |        |        |
| exceptional items         | 7.0%   | 10.8%  | 17.1%  | (7.8%)        | (2.8%) | 6.0%   | 4.7%         | 6.0%   | 10.2%  | 15.6%                                 | 8.1%   | 9.5%   |
| Gross cash flow           | 1,690  | 1,865  | 1,984  | 743           | 638    | 1,544  | 361          | 311    | 357    | 366                                   | 225    | 229    |
| Capital invested          | 21,346 | 16,506 | 16,074 | 11,593        | 13,099 | 13,305 | 2,458        | 2,712  | 2,628  | 1,323                                 | 1,609  | 1,433  |
| CFROI                     | 8.6%   | 11.3%  | 13.4%  | 5.9%          | 4.6%   | 12.3%  | 12.6%        | 11.2%  | 14.3%  | 25.4%                                 | 14.5%  | 16.2%  |
| Equity-method income      | 2      | 12     | 0      | 0             | 0      | 0      | 0            | 0      | (1)    | 0                                     | 0      | 0      |
| Equity-method             |        |        |        |               |        |        |              |        |        |                                       |        |        |
| investments               | 401    | 351    | 255    | 506           | 618    | 582    | 2            | 2      | 2      | 16                                    | 16     | 20     |
| Total assets              | 23,694 | 17,424 | 16,228 | 11,565        | 12,749 | 12,947 | 3,225        | 3,138  | 3,085  | 1,734                                 | 1,834  | 1,723  |
| Capital expenditures      | 1,422  | 1,627  | 1,466  | 676           | 560    | 754    | 188          | 255    | 199    | 97                                    | 118    | 98     |
| Amortization and          |        |        |        |               |        |        |              |        |        |                                       |        |        |
| depreciation              | 1,698  | 1,237  | 994    | 1,344         | 943    | 841    | 158          | 150    | 118    | 64                                    | 104    | 84     |
| Liabilities               | 14,370 | 9,820  | 8,888  | 6,390         | 6,433  | 6,642  | 1,613        | 1,379  | 1,489  | 945                                   | 673    | 672    |
| Research and              |        |        |        |               |        |        |              |        |        |                                       |        |        |
| development expenses      | 1,776  | 1,723  | 1,351  | 694           | 696    | 681    | 48           | 68     | 83     | 14                                    | 9      | 10     |
| Number of employees (as   |        |        |        |               |        |        |              |        |        |                                       |        |        |
| of Dec. 31)               | 70,600 | 66,000 | 67,700 | 24,600        | 23,400 | 24,300 | 15,400       | 12,600 | 12,100 | 12,000                                | 11,000 | 11,400 |

| Regions                 | Reconciliation |         |         | Continuing Operations |        |        | Discontinuing<br>Operations |       |       | Bayer Group |        |        |
|-------------------------|----------------|---------|---------|-----------------------|--------|--------|-----------------------------|-------|-------|-------------|--------|--------|
|                         | 2002           | 2001    | 2000    | 2002                  | 2001   | 2000   | 2002                        | 2001  | 2000  | 2002        | 2001   | 2000   |
| ( Million)              |                |         |         |                       |        |        |                             |       |       |             |        |        |
| Net sales (external)    |                |         |         |                       |        |        |                             |       |       |             |        |        |
| by market               |                |         |         | 28,958                | 29,170 | 29,121 | 666                         | 1,105 | 1,850 | 29,624      | 30,275 | 30,971 |
| Net sales (external)    |                |         |         |                       |        |        |                             |       |       |             |        |        |
| by point of origin      |                |         |         | 28,958                | 29,170 | 29,121 | 666                         | 1,105 | 1,850 | 29,624      | 30,275 | 30,971 |
| Change in               |                |         |         | (0.7%)                | 0.2%   | 21.5%  |                             |       |       | (2.2%)      | (2.2%) | 13.4%  |
| Change in local         |                |         |         |                       |        |        |                             |       |       |             |        |        |
| currencies              |                |         |         | 4.2%                  | (0.1%) | 12.2%  |                             |       |       | 2.6%        | (2.5%) | 4.5%   |
| Interregional sales     | (5,508)        | (5,446) | (4,947) |                       |        |        |                             |       |       |             |        |        |
| Other operating income  |                |         |         | 1,732                 | 481    | 420    | 5                           | 339   | 42    | 1,737       | 820    | 462    |
| Operating result before |                |         |         |                       |        |        |                             |       |       |             |        |        |
| exceptional items       | (224)          | (335)   | (352)   | 989                   | 1,838  | 3,268  | 47                          | 93    | 188   | 1,036       | 1,931  | 3,456  |
| Return on sales before  |                |         |         |                       |        |        |                             |       |       |             |        |        |
| exceptional items       |                |         |         | 3.4%                  | 6.3%   | 11.2%  |                             |       |       | 3.5%        | 6.4%   | 11.2%  |

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|   |       |       |       |         |         |         |     |       |       |         |         |         |
|---|-------|-------|-------|---------|---------|---------|-----|-------|-------|---------|---------|---------|
| Exceptional items                                 | 0     | (19)  | 0     | (395)   | (633)   | (153)   | 933 | 313   | (16)  | 538     | (320)   | (169)   |
| Operating result                                  | (224) | (354) | (352) | 594     | 1,205   | 3,115   | 980 | 406   | 172   | 1,574   | 1,611   | 3,287   |
| Return on sales<br>including exceptional<br>items |       |       |       | 2.1%    | 4.1%    | 10.7%   |     |       |       | 5.3%    | 5.3%    | 10.6%   |
| Gross cash flow                                   | (225) | (222) | (194) | 2,935   | 2,818   | 3,920   | 77  | 105   | 244   | 3,012   | 2,923   | 4,164   |
| Capital invested                                  | (8)   | (15)  | (50)  | 36,712  | 33,911  | 33,390  | 0   | 947   | 1,672 | 36,712  | 34,858  | 35,062  |
| CFROI   |       |       |       | 8.0%    | 8.2%    | 12.6%   |     |       |       | 8.1%    | 8.2%    | 12.7%   |
| Equity-method income                              |       |       |       | 2       | 12      | (1)     | 3   | 14    | 72    | 5       | 26      | 71      |
| Equity-method<br>Investments                      |       |       |       | 925     | 987     | 859     | 170 | 179   | 487   | 1,095   | 1,166   | 1,346   |
| Total assets                                      | 1,474 | 1,074 | 803   | 41,692  | 36,219  | 34,789  | 0   | 820   | 1,662 | 41,692  | 37,039  | 36,451  |
| Capital expenditures                              | 0     | 0     | 0     | 2,383   | 2,560   | 2,517   | 0   | 57    | 129   | 2,383   | 2,617   | 2,646   |
| Amortization and<br>depreciation                  | 1     | 4     | 0     | 3,265   | 2,438   | 2,037   | 48  | 78    | 102   | 3,313   | 2,516   | 2,139   |
| Liabilities                                       | 2,919 | 1,482 | 1,732 | 26,237  | 19,786  | 19,423  | 0   | 233   | 651   | 26,237  | 20,019  | 20,074  |
| Research and<br>development expenses              | 0     | 0     | 203   | 2,532   | 2,496   | 2,328   | 45  | 63    | 65    | 2,577   | 2,559   | 2,393   |
| Number of employees<br>(as of Dec. 31)            | 0     | 0     | 0     | 122,600 | 113,000 | 115,500 | 0   | 3,900 | 6,600 | 122,600 | 116,900 | 122,100 |

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****[8] Income from investments in affiliated companies net**

This comprises the following items:

|   | <u>2002</u> | <u>2001</u> | <u>2000</u> |
|---|-------------|-------------|-------------|
|   |             | ( million)  |             |
| Dividends and similar income  | 25          | 15          | 18          |
| of which 23 million (2001: 12 million; 2000: 8 million) from subsidiaries         |             |             |             |
| Income from profit and loss transfer agreements                                   | 1           | *           | 1           |
| of which 1 million (2001: less than 1 million; 2000: 1 million) from subsidiaries |             |             |             |
| Income (Expense) from companies included at equity                                | 5           | 26          | 71          |
| Gains from the sale of investments in affiliated companies                        | 274         | 16          | 204         |
| Losses from the sale of investments in affiliated companies                       | 0           | (3)         | (1)         |
| Write-downs of investments in affiliated companies                                | (82)        | 0           | (10)        |
|   | <u>223</u>  | <u>54</u>   | <u>283</u>  |

\* less than 1 million

The increase in income from investments in affiliated companies is mainly attributable to the 259 million gain from the sale of the remaining 30 percent interest in Agfa-Gevaert N.V., Belgium, to investment bank Goldman Sachs.

In the year 2000 this item contained the 65 million gain from the sale of the 11 percent interest in Myriad Genetics, Salt Lake City, Utah, 142 million gain from the sale of the 25 percent interest in Schein Pharmaceutical Inc., Florham Park, New Jersey and the equity income from the Agfa-Gevaert group.

**[9] Interest expense net**

Interest income and expense comprises:

|   | <u>2002</u>  | <u>2001</u>  | <u>2000</u>  |
|---|--------------|--------------|--------------|
|   |              | ( million)   |              |
| Income from other securities and loans included in investments          | 8            | 9            | 10           |
| Other interest and similar income                                       | 459          | 108          | 143          |
| of which 2 million (2001: 1 million; 2000: 4 million) from subsidiaries |              |              |              |
| Interest and similar expenses   | (916)        | (466)        | (464)        |
| of which 13 million (2001: 5 million; 2000: 24 million) to subsidiaries |              |              |              |
|   | <u>(449)</u> | <u>(349)</u> | <u>(311)</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 34 million in 2002 (2001: 9 million; 2000: 13 million), 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 2002 to 22 million (2001: 30 million; 2000: 28 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.

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****[10] Other non-operating expense net**

This item comprises:

|   | <u>2002</u>  | <u>2001</u>  | <u>2000</u>  |
|---|--------------|--------------|--------------|
|   | ( million)   |              |              |
| Interest portion of interest-bearing provisions | (296)        | (274)        | (272)        |
| Net Exchange gain (loss)                        | 31           | 49           | (21)         |
| Miscellaneous non-operating expenses            | (174)        | (28)         | (18)         |
| Miscellaneous non-operating income              | 47           | 52           | 42           |
|   | <u>(392)</u> | <u>(201)</u> | <u>(269)</u> |

Miscellaneous non-operating expenses contain 81 million in write-downs of other securities included in investments, and 16 million in write-downs 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 carryforwards. 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.

The breakdown of pre-tax income and income tax expense by origin is as follows:

|                              | <u>2002</u>  | <u>2001</u>  | <u>2000</u>  |
|------------------------------|--------------|--------------|--------------|
|                              | ( million)   |              |              |
| Income before income taxes   |              |              |              |
| Germany                      | 1,392        | 971          | 1,482        |
| Other countries              | (436)        | 144          | 1,508        |
|                              | <u>956</u>   | <u>1,115</u> | <u>2,990</u> |
| Income taxes paid or accrued |              |              |              |
| Germany                      | 129          | 122          | 442          |
| Other countries              | 169          | 502          | 321          |
|                              | <u>298</u>   | <u>624</u>   | <u>763</u>   |
| Deferred taxes               |              |              |              |
| from temporary differences   | (185)        | (272)        | 383          |
| from loss carry-forwards     | (220)        | (198)        | 2            |
|                              | <u>(405)</u> | <u>(470)</u> | <u>385</u>   |
|                              | <u>(107)</u> | <u>154</u>   | <u>1,148</u> |

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A valuation allowance is recognized against tax loss carryforwards when it is not sufficiently certain that this income will be realized.

In September 2002 the German government adopted legislation to provide assistance to people affected by severe flooding in summer 2002. This provides for an increase in the corporate income tax rate from 25 percent to 26.5 percent for 2003 only. Since the higher rate of tax had no material impact on the Group statements for 2002, deferred tax expense did not change as a result of changes in tax rates. In 2001, changes in tax rates diminished deferred tax expense by 8 million (2000: 21 million).

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

Deferred taxes computed according to IAS 12 (Income Taxes) result primarily from temporary differences between the accounting and tax balance sheets of the individual consolidated companies with regard to the recognition and/or valuation of certain items.

The deferred tax assets and liabilities are allocable to the various balance sheet items as follows:

|   | Dec. 31, 2002       |                          | Dec. 31, 2001       |                          | Dec. 31, 2000       |                          |
|---|---------------------|--------------------------|---------------------|--------------------------|---------------------|--------------------------|
|   | Deferred tax assets | Deferred tax liabilities | Deferred tax assets | Deferred tax liabilities | Deferred tax assets | Deferred tax liabilities |
|   | ( million)          |                          |                     |                          |                     |                          |
| Intangible assets                           | 416                 | 1,589                    | 438                 | 177                      | 87                  | 72                       |
| Property, plant and equipment               | 419                 | 1,558                    | 243                 | 1,672                    | 68                  | 1,745                    |
| Investments                                 | 52                  | 106                      | 20                  | 88                       | 2                   | 79                       |
| Inventories                                 | 308                 | 75                       | 267                 | 86                       | 298                 | 86                       |
| Receivables                                 | 113                 | 70                       | 122                 | 53                       | 116                 | 51                       |
| Other current assets                        | 52                  | 242                      | 11                  | 189                      | 51                  | 132                      |
| Pension provisions                          | 328                 | 225                      | 357                 | 247                      | 327                 | 202                      |
| Other provisions                            | 254                 | 66                       | 166                 | 74                       | 144                 | 46                       |
| Other liabilities                           | 55                  | 172                      | 158                 | 30                       | 163                 | 40                       |
| Loss carry-forwards                         | 743                 |                          | 282                 |                          | 82                  |                          |
| Valuation allowance for loss carry-forwards | (123)               |                          | (78)                |                          | (67)                |                          |
|   | 2,617               | 4,103                    | 1,986               | 2,616                    | 1,271               | 2,453                    |
| Set-off*                                    | (1,650)             | (1,650)                  | (1,378)             | (1,378)                  | (858)               | (858)                    |
|   | 967                 | 2,453                    | 608                 | 1,238                    | 413                 | 1,595                    |

\* 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.

In 2002, deferred tax assets of 331 million (2001: 9 million; 2000: 122 million) and deferred tax liabilities of 1,340 million (2001: 10 million; 2000: 167 million) relate to changes in the scope of consolidation. Utilization of tax loss carryforwards from previous years diminished the amount of income taxes paid or accrued in 2002 by 11 million (2001: 88 million; 2000: 7 million).

The value of existing loss carryforwards by expiration date is as follows:

|                           | Dec. 31, 2002 | Dec. 31, 2001 | Dec. 31, 2000 |
|---------------------------|---------------|---------------|---------------|
|                           | ( million)    |               |               |
| One year                  | 17            | 6             | 3             |
| Two years                 | 4             | 11            | 20            |
| Three years               | 17            | 16            | 11            |
| Four years                | 17            | 50            | 22            |
| Five years and thereafter | 1,936         | 653           | 196           |
|                           | 1,991         | 736           | 525           |

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Deferred tax assets of 620 million (2001: 204 million; 2000: 15 million) are recognized on the 1,731 million (2001: 540 million; 2000: 48 million) in loss carryforwards that represent income likely to be realized in the future. Recognition of these deferred tax assets results in deferred tax income of 220 million (2001: 198 million).

Deferred tax liabilities have not been recognized for temporary differences associated with investments in foreign subsidiaries of 3,327 million (2001: 3,030 million, 2000: 2,887 million) as Bayer has determined that

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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 tax income for 2002 is 107 million (2001: 154 million expense; 2000: 1,148 million expense). This figure differs by 465 million (2001: 259 million; 2000: 31 million) from the 358 million expense (2001: 413 million expense; 2000: 1,179 million expense) that would result from applying to the pre-tax income of the Group a tax rate of 37.5 percent (2001: 37.1 percent; 2000: 39.5 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:

|   | 2002         |             | 2001       |           | 2000         |           |
|---|--------------|-------------|------------|-----------|--------------|-----------|
|   | million      | %           | million    | %         | Million      | %         |
| Theoretical income tax expense                  | 358          | 100         | 413        | 100       | 1,179        | 100       |
| Lower taxes due to tax-free income              | (677)        | (189)       | (283)      | (68)      | (151)        | (13)      |
| Higher taxes due to non-tax-deductible expenses | 168          | 47          | 47         | 11        | 93           | 8         |
| Other tax effects                               | 44           | 12          | (23)       | (5)       | 27           | 2         |
| <b>Actual income tax expense</b>                | <b>(107)</b> | <b>(30)</b> | <b>154</b> | <b>38</b> | <b>1,148</b> | <b>97</b> |
| Effective tax rate in %                         | (11.2)       |             | 13.8       |           | 38.4         |           |

**[12] Other taxes**

Other taxes amounting to 221 million (2001: 247 million; 2000: 229 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.

**[13] Minority Stockholders interest**

Minority interest in income amounts to 12 million (2001: 6 million; 2000: 29 million), and minority interest in losses to 9 million (2001: 10 million; 2000: 3 million).

**[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 2002, as in 2001 and in 2000, the number of shares remained constant at 730,341,920. Earnings per share were 1.45 (2001: 1.32; 2000: 2.49).

There were no subscription rights outstanding in 2002, in 2001 or in 2000, and therefore no dilutive potential shares.

**[15] Cost of materials**

The total cost of materials for continuing operations amounted to 11,346 million (2001: 11,093 million; 2000: 10,166 million), comprising 10,760 million (2001: 10,387 million; 2000: 9,494 million) in expenses for raw materials, supplies and goods purchased for resale, and 586 million (2001: 706 million; 2000: 673 million) in expenses for purchased services.

The cost of materials for the discontinuing operations was 268 million (2001: 497 million; 2000: 1,042 million). The figure for 2002 was attributable in its entirety to the inclusion of the Haarmann & Reimer group for the first nine months until the date of divestiture. The cost of

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materials for Haarmann & Reimer was 268 million (2001: 344 million; 2000: 393 million), including 4 million (2001: 10 million; 2000:

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10 million) for purchased services. The 153 million cost of materials pertaining to Erdölchemie in 2001 (2000: 545 million) related solely to raw materials and supplies. In 2000, DyStar accounted for 104 million, which included 1 million for purchased services.

**[16] Personnel expenses**

Personnel expenses for continuing operations rose in 2002 on aggregate by 387 million (2001 by 251 million) to 8,001 million (2001: 7,614 million), despite a 214 million reduction (2001: 43 million increase) due to exchange rate fluctuations.

The breakdown of personnel expenses is as follows:

|                           | <b>Discontinuing Operations</b> |              |              |             |             |             |             |             |               |             |              |             |  |
|---------------------------|---------------------------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|--------------|-------------|--|
|                           | <b>Continuing Operations</b>    |              |              |             |             |             |             |             |               |             |              |             |  |
|                           |                                 |              |              | <b>EC</b>   |             | <b>HR</b>   |             |             | <b>Dystar</b> |             | <b>Total</b> |             |  |
|                           | <b>2002</b>                     | <b>2001</b>  | <b>2000</b>  | <b>2001</b> | <b>2000</b> | <b>2002</b> | <b>2001</b> | <b>2000</b> | <b>2000</b>   | <b>2002</b> | <b>2001</b>  | <b>2000</b> |  |
| Wages and salaries        | 6,317                           | 6,037        | 5,869        | 18          | 55          | 138         | 188         | 184         | 67            | 138         | 206          | 306         |  |
| Social expenses           | 1,684                           | 1,577        | 1,494        | 5           | 15          | 37          | 47          | 39          | 13            | 37          | 52           | 67          |  |
| Of which pension expenses | [519]                           | [430]        | [400]        | [2]         | [5]         | [25]        | [14]        | [8]         | [3]           | [25]        | [16]         | [16]        |  |
|                           | <b>8,001</b>                    | <b>7,614</b> | <b>7,363</b> | <b>23</b>   | <b>70</b>   | <b>175</b>  | <b>235</b>  | <b>223</b>  | <b>80</b>     | <b>175</b>  | <b>258</b>   | <b>373</b>  |  |

**[17] Number of employees**

The average number of employees in continuing operations, classified by corporate functions, was as follows:

|                          | <b>2002</b>    | <b>2001</b>    | <b>2000</b>    |
|--------------------------|----------------|----------------|----------------|
| Marketing                | 35,985         | 33,875         | 33,397         |
| Technology               | 66,051         | 61,055         | 61,196         |
| Research                 | 12,521         | 11,206         | 11,071         |
| Administration           | 10,035         | 9,091          | 9,526          |
|                          | <b>124,592</b> | <b>115,227</b> | <b>115,190</b> |
| <i>Of which trainees</i> | 2,564          | 2,646          | 2,670          |

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 2002 was 1,102 (2001: 1,075; 2000: 1,048).

The figures in the above table do not include people employed in discontinuing operations. In 2002, Haarmann & Reimer employed an average 3,576 people (2001: 3,660; 2000: 3,742).

**[18] Intangible assets**



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Acquired intangible assets other than goodwill are recognized at cost and amortized by the straight-line method over a period of 4 to 15 years, depending on their estimated useful lives. Write-downs are made for impairment losses. Assets are written back if the reasons for previous years' write-downs no longer apply.

Goodwill, including that resulting from capital consolidation, is capitalized in accordance with IAS 22 (Business Combinations) 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. In compliance with IAS 36 (Impairment of Assets), such write-downs of goodwill are measured by comparison to the discounted cash flows expected to be generated by the assets to which the goodwill can be ascribed.

Self-created intangible assets generally are not capitalized.

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Certain development costs relating to the application development stage of internally developed software are capitalized in the Group Balance sheet. These costs are amortized over their useful life from the date they are placed in service.

Changes in intangible assets in 2002 were as follows:

|  | Acquired<br>concessions,<br>industrial property<br>rights, similar<br>rights and assets,<br>and licenses<br>thereunder | Acquired<br>goodwill | Advance<br>payments | Total         |
|--|--|----------------------|---------------------|---------------|
|  | ( million)   |                      |                     |               |
| Gross carrying amounts, Dec. 31, 2001                          | 5,240  | 1,399                | 42                  | 6,681         |
| Exchange differences   | (529)  | (163)                | (4)                 | (696)         |
| Changes in scope of consolidation                              | 2  | 7                    |                     | 9             |
| Acquisitions   | 3,057  | 2,267                |                     | 5,324         |
| Capital expenditures   | 363  |                      | 72                  | 435           |
| Retirements  | (249)  | (204)                | (13)                | (466)         |
| Transfers  | 39   |                      | (39)                |               |
| <b>Gross carrying amounts, Dec. 31, 2002</b>                   | <b>7,923</b>   | <b>3,306</b>         | <b>58</b>           | <b>11,287</b> |
| Accumulated amortization and write-downs, Dec. 31, 2001        | 1,243  | 424                  |                     | 1,667         |
| Exchange differences   | (149)  | (43)                 |                     | (192)         |
| Changes in scope of consolidation                              |  |                      |                     |               |
| Amortization and write-downs in 2002                           | 1,058  | 205                  |                     | 1,263         |
| <i>of which write-downs</i>                                    | [249]  | [11]                 | [ ]                 | [260]         |
| Write-backs  |  |                      |                     |               |
| Retirements  | (186)  | (144)                |                     | (330)         |
| Transfers  |  |                      |                     |               |
| <b>Accumulated amortization and write-downs, Dec. 31, 2002</b> | <b>1,966</b>   | <b>442</b>           |                     | <b>2,408</b>  |
| <b>Net carrying amounts, Dec. 31, 2002</b>                     | <b>5,957</b>   | <b>2,864</b>         | <b>58</b>           | <b>8,879</b>  |
| Net carrying amounts, Dec. 31, 2001                            | 3,997  | 975                  | 42                  | 5,014         |

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 go beyond the depletion reflected in depreciation. In compliance with IAS 36 (Impairment of Assets), such write-downs are measured by comparing the carrying amounts to the discounted cash flows expected to be generated by the respective assets. Where it is not possible to estimate the impairment loss for an individual asset, the loss is assessed on the basis of the discounted cash flow for the cash-generating unit to which the asset belongs. Assets are written back if the reasons for previous years' write-downs no longer apply.

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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

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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.

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 pattern.

When assets are retired, sold, or abandoned, the difference between the net proceeds and the net carrying amount of the assets is recognized as a gain or loss in other operating income or expenses, respectively.

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.

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Changes in property, plant and equipment in 2002 were as follows:

|  | <b>Land and<br/>buildings</b> | <b>Machinery and<br/>technical<br/>equipment</b> | <b>Furniture,<br/>fixtures and<br/>other<br/>equipment</b> | <b>Construction in<br/>progress and<br/>advance<br/>payments to<br/>vendors and<br/>contractors</b> | <b>Total</b>  |
|--|-------------------------------|--|--|---|---------------|
|  | ( Million)                    |  |  |   |               |
| Gross carrying amounts, Dec. 31, 2001                              | 8,148                         | 19,544   | 2,500  | 1,698   | 31,890        |
| Exchange differences   | (538)                         | (1,691)  | (233)  | (110)   | (2,572)       |
| Changes in scope of consolidation                                  | (139)                         | 3  | 1  | 15  | (120)         |
| Acquisitions   | 411                           | 401  | 62   | 54  | 928           |
| Capital expenditures   | 98                            | 516  | 196  | 1,138   | 1,948         |
| Retirements  | (521)                         | (901)  | (369)  | (78)  | (1,869)       |
| Transfers  | 602                           | 718  | 88   | (1,408)   |               |
| <b>Gross carrying amounts, Dec. 31, 2002</b>                       | <b>8,061</b>                  | <b>18,590</b>                                    | <b>2,245</b>   | <b>1,309</b>  | <b>30,205</b> |
| Accumulated depreciation and write-downs,<br>Dec. 31, 2001         | 4,168                         | 12,486   | 1,675  | 18  | 18,347        |
| Exchange differences   | (203)                         | (1,053)  | (149)  |   | (1,405)       |
| Changes in scope of consolidation                                  | (108)                         | (2)  |  |   | (110)         |
| Depreciation and write-downs in 2002                               | 285                           | 1,460  | 304  | 1   | 2,050         |
| <i>of which write-downs</i>  | [11]                          | [238]  | [1]  | [ ]   | [250]         |
| Write-backs  |                               | (3)  | (1)  |   | (4)           |
| Retirements  | (157)                         | (654)  | (280)  | (18)  | (1,109)       |
| Transfers  | 67                            | (58)   | (9)  |   |               |
| <b>Accumulated depreciation and<br/>write-downs, Dec. 31, 2002</b> | <b>4,052</b>                  | <b>12,176</b>                                    | <b>1,540</b>   | <b>1</b>  | <b>17,769</b> |
| <b>Net carrying amounts, Dec. 31, 2002</b>                         | <b>4,009</b>                  | <b>6,414</b>                                     | <b>705</b>   | <b>1,308</b>  | <b>12,436</b> |
| Net carrying amounts, Dec. 31, 2001                                | 3,980                         | 7,058  | 825  | 1,680   | 13,543        |

The exchange differences are as defined for intangible assets.

Capitalized property, plant and equipment includes assets with a total net value of 504 million (2001: 588 million) held under finance leases. The gross carrying amounts of these assets total 1,106 million (2001: 1,229 million). These assets are mainly machinery and technical equipment with a carrying amount of 358 million (gross amount 864 million) and buildings with a carrying amount of 105 million (gross amount 140 million). In the case of buildings, either the present value of the minimum lease payments covers substantially all of the cost of acquisition, or title passes to the lessee an expiration of the lease.

Also included are products leased to other parties under operating leases with a carrying amount of 232 million (2001: 381 million). The gross carrying amount of these assets was 500 million (2001: 753 million); their depreciation in 2002 amounted to 83 million (2001: 52 million). However, if under the relevant agreements the lessee is to be regarded as the economic owner of the assets and the lease therefore constitutes a finance lease as defined in IAS 17 (Leases), a receivable is recognized in the balance sheet in the amount of the discounted future lease payments.

**[20] Investments**

Investments in non-consolidated subsidiaries and other affiliated companies are generally carried individually at cost. Where other affiliated companies or other securities included in investments are classified as held-to-maturity investments or available-for-sale financial assets, they are recognized in compliance with IAS 39

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(Financial Instruments: Recognition and Measurement) at amortized cost or fair value. Where evidence exists that such assets may be impaired, they are written down as necessary on the basis of an impairment test. 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. In the first-time consolidation, differences between the cost of acquisition and the underlying equities at the dates of acquisition of the investments are allocated to assets or liabilities by the same method applied to fully consolidated subsidiaries.

Loans receivable that are interest-free or bear low rates of interest are carried at present value; other loans receivable are carried at amortized cost.

Changes in investments in 2002 were as follows:

|   | Investments<br>in<br>subsidiaries | Loans to<br>subsidiaries | Investments in other<br>affiliated companies |                    | Loans to<br>other       |                     | Other<br>loans | Total        |
|---|-----------------------------------|--------------------------|--|--------------------|-------------------------|---------------------|----------------|--------------|
|   |                                   |                          | Associated<br>companies                      | Other<br>companies | affiliated<br>companies | Other<br>securities |                |              |
| ( Million)                                    |                                   |                          |  |                    |                         |                     |                |              |
| Gross carrying amounts, Dec. 31, 2001         | 182                               |                          | 1,290  | 1,341              | 13                      | 196                 | 207            | 3,229        |
| Exchange differences                          | (12)                              |                          | (137)  | (13)               | (1)                     | (33)                | (9)            | (205)        |
| Changes in scope of consolidation             | (22)                              |                          |  | 1                  | 3                       |                     | (1)            | (19)         |
| Changes of fair value                         |                                   |                          |  | (570)              |                         | (3)                 |                | (573)        |
| Acquisitions                                  | 23                                |                          |  | 59                 |                         | 61                  | 26             | 169          |
| Other additions                               | 4                                 |                          | 107  | 75                 |                         | 101                 | 345            | 632          |
| Retirements                                   | (28)                              |                          | (55)   | (496)              |                         | (84)                | (165)          | (828)        |
| Transfers                                     | (8)                               |                          |  | (6)                | (8)                     | 14                  | 8              |              |
| <b>Gross carrying amounts, Dec. 31, 2002</b>  | <b>139</b>                        |                          | <b>1,205</b>                                 | <b>391</b>         | <b>7</b>                | <b>252</b>          | <b>411</b>     | <b>2,405</b> |
| Accumulated write-downs, Dec. 31, 2001        | 14                                |                          | 58   |                    |                         | 3                   | 9              | 84           |
| Exchange differences                          | (5)                               |                          | (2)  | (1)                |                         | (7)                 |                | (15)         |
| Changes in scope of consolidation             |                                   |                          |  |                    | 1                       |                     |                | 1            |
| Write-downs in 2002                           | 22                                |                          | 7  | 67                 | 1                       | 81                  | 1              | 179          |
| Write-backs                                   |                                   |                          |  |                    |                         |                     | (1)            | (1)          |
| Retirements                                   | (22)                              |                          | (17)   |                    |                         | (1)                 | (1)            | (41)         |
| Transfers                                     |                                   |                          |  |                    |                         |                     |                |              |
| <b>Accumulated write-downs, Dec. 31, 2002</b> | <b>9</b>                          |                          | <b>46</b>                                    | <b>66</b>          | <b>2</b>                | <b>76</b>           | <b>8</b>       | <b>207</b>   |
| <b>Net carrying amounts, Dec. 31, 2002</b>    | <b>130</b>                        |                          | <b>1,159</b>                                 | <b>325</b>         | <b>5</b>                | <b>176</b>          | <b>403</b>     | <b>2,198</b> |
| Net carrying amounts, Dec. 31, 2001           | 168                               |                          | 1,232  | 1,341              | 13                      | 193                 | 198            | 3,145        |

The exchange differences are as defined for intangible assets.

The additions to investments in associated companies relate mainly to a manufacturing company being established jointly with Lyondell, which is included at equity. The difference between the equity interest in the underlying net assets of companies included at equity and their at-equity accounting values is 34 million (2001: 45 million). It mainly relates to goodwill. Retirements of investments in other companies mainly relate to the divestiture of the 30 percent interest in Agfa-Gevaert N.V., Belgium, which in 2001 was included at fair value under investments in other companies. Of the additions to other loans, 250 million relates to the granting of a loan to the financial investor EQT Northern Europe Private Equity Funds in connection with its acquisition of the Haarmann & Reimer group.

**[21]Inventories**

Raw Materials, supplies, and goods purchased for resale are valued at the cost of acquisition; work in process and finished goods are valued at the cost of production. If the inventory values are lower at the closing date because of a drop in market prices, for example, the lower amounts are shown. Of the 6,342 million (2001:

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5,818 million) in inventories carried as of December 31, 2002, 833 million (2001: 824 million) represents those included at their net realizable value. Inventories are normally valued by the weighted-average method.

The cost of production 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 for production. 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, 2002</u> | <u>Dec. 31, 2001</u> |
|--|----------------------|----------------------|
|  | ( million)           |                      |
| Raw materials and supplies                                     | 1,362                | 1,179                |
| Work in process, finished goods and goods purchased for resale | 4,963                | 4,626                |
| Advanced payments  | 17                   | 13                   |
|  | <u>6,342</u>         | <u>5,818</u>         |

The changes in inventory write-downs are as follows:

|                                      | <u>Dec. 31, 2002</u> | <u>Dec. 31, 2001</u> |
|--------------------------------------|----------------------|----------------------|
|                                      | ( million)           |                      |
| Balance at the beginning of the year | (434)                | (241)                |
| Additions charged to expense         | (282)                | (362)                |
| Exchange differences                 | 33                   | (2)                  |
| Changes in scope of consolidation    | (82)                 | 17                   |
| Deductions due to utilization        | 308                  | 154                  |
|                                      | <u>(457)</u>         | <u>(434)</u>         |

**[22] Trade accounts receivable**

Trade accounts receivable are stated at nominal value, less write-downs of 345 million (2001: 222 million) for amounts unlikely to be recovered.

Trade accounts receivable as of December 31, 2002 include 5,529 million (2001: 5,413 million) maturing within one year and 13 million (2001: 2 million) maturing after one year. Of the total, 47 million (2001: 18 million) is receivable from subsidiaries, 60 million (2001: 66 million) from other affiliated companies and 5,435 million (2001: 5,331 million) from other customers.

Changes in write-downs of trade accounts receivable are as follows:

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|                                      | <u>Dec. 31, 2002</u> | <u>Dec. 31, 2001</u> |
|--------------------------------------|----------------------|----------------------|
|                                      | ( million)           |                      |
| Balance at the beginning of the year | (222)                | (204)                |
| Additions charged to expense         | (101)                | (94)                 |
| Exchange differences                 | 49                   | (5)                  |
| Changes in scope of consolidation    | (384)                | 5                    |
| Deductions due to utilization        | 313                  | 76                   |
|                                      | <u>          </u>    | <u>          </u>    |
| Balance at the end of year           | (345)                | (222)                |
|                                      | <b>          </b>    | <b>          </b>    |

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****[23] Other receivables and other assets**

Other receivables and other assets are carried at amortized cost, less write-downs of 4 million (2001: 4 million).

They are comprised as follows:

|   | <b>Dec. 31, 2002</b> | <b>Dec. 31, 2001</b> |
|---|----------------------|----------------------|
|   | ( million)           |                      |
| Claims for tax refunds                            | 677                  | 448                  |
| Receivables from derivative financial instruments | 502                  | 72                   |
| Interest receivable on loans                      | 98                   | 19                   |
| Short-term loans                                  | 85                   | 102                  |
| Short-term loans from clearing                    | 51                   | 41                   |
| Lease payments receivable                         | 48                   | 94                   |
| Payroll receivables                               | 14                   | 47                   |
| Other receivables                                 | 2,735                | 1,624                |
|   | <u>4,210</u>         | <u>2,447</u>         |

Interest receivable and loans consists mainly of interest earned in the fiscal year but not due to be received until after the balance sheet date.

Total other receivables and other assets include 47 million (2001: 66 million) pertaining to subsidiaries and 60 million (2001: 124 million) pertaining to other affiliated companies.

Total other receivables and other assets in the amount of 711 million (2001: 444 million) mature in more than one year. Of this amount, 29 million (2001: 30 million) pertains to subsidiaries.

Other receivables in 2002 include 1.1 billion in assets earmarked for sale because the Bayer Group is mandated by regulatory conditions imposed in connection with the acquisition of Aventis CropScience Holding S.A., France, to divest certain insecticidal active ingredients businesses and related rights.

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 48 million (2001: 94 million), while the interest portion pertaining to future years amounts to 9 million (2001: 29 million). The lease payments are due as follows:

|            | <b>Lease<br/>payments</b> | <b>Of which<br/>interest</b> | <b>Account<br/>receivable</b> |
|------------|---------------------------|------------------------------|-------------------------------|
|            | ( million)                |                              |                               |
| 2003       | 20                        | 3                            | 17                            |
| 2004       | 14                        | 2                            | 12                            |
| 2005       | 10                        | 1                            | 9                             |
| 2006       | 7                         | 1                            | 6                             |
| 2007       | 4                         | 1                            | 3                             |
| After 2007 | 2                         | 1                            | 1                             |
|            | <u>57</u>                 | <u>9</u>                     | <u>48</u>                     |



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****[24] Liquid assets**

|   | <u>Dec. 31, 2002</u> | <u>Dec. 31, 2001</u> |
|---|----------------------|----------------------|
|   | ( million)           |                      |
| Marketable securities and other instruments | 29                   | 52                   |
| Cash and cash equivalents                   | <u>767</u>           | <u>719</u>           |
|   | <u>796</u>           | <u>771</u>           |

As of 2001, securities are recognized at fair value in compliance with IAS 39 (Financial Instruments: Recognition and Measurement). Their total fair value at the closing date amounts to 29 million (2001: 52 million), which is 14 million less (2001: 13 million more) than their cost of acquisition. Financial instruments with original maturities of up to three months are recognized as cash equivalents in view of their high liquidity.

**[25] Deferred charges**

Total deferred charges include 261 million (2001: 183 million) that is expected to be used up in 2003.

**[26] Stockholders equity**

The capital stock of Bayer AG amounts to 1,870 million, as in the previous year, and is divided into 730,341,920 no-par bearer shares of a single class.

Authorized capital totaling 250 million was approved by the Annual Stockholders Meeting on April 26, 2002. It expires on April 26, 2007. The authorized capital can be used to increase the capital stock by issuing new shares against cash contributions. The Board of Management is authorized to exclude subscription rights with respect to 100 million of this authorized capital; however, in this case the issue price of the new shares must not be significantly below the market price. Exclusion of subscription rights for a further 150 million is only possible in specific cases.

Further authorized capital in the amount of 374 million was approved by the Annual Stockholders Meeting on April 27, 2001. This authorized capital, which expires on April 27, 2006, can be used to increase the capital stock by issuing new shares against non-cash contributions. Subscription rights for existing stockholders are excluded.

Conditional capital of 83 million existed on December 31, 2002. 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 consolidated companies. Changes in fair values of financial instruments are recognized in miscellaneous items of other comprehensive income. Among other factors affecting these items in 2002 was the sale of our remaining interest in Agfa-Gevaert N.V., Belgium. The changes in the various components of stockholders equity during 2002 and 2001 are shown in the statements of changes in stockholders equity.

The dividend per share paid for the 2001 fiscal year was 0.90 (2000: 1.40).

**[27] Minority interest**

Minority interest mainly comprises third parties' shares in the equity of the consolidated subsidiaries Sumika Bayer Urethane Co. Ltd., Japan; the Makroform GmbH group; Bayer (India) Ltd.; and Bayer ABS Ltd., India.

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****[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 2002, these expenses totaled 393 million (2001: 312 million; 2000: 437 million).

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 2002, expenses for defined benefit plans amounted to 521 million (2001: 301 million; 2000: 326 million). These net periodic costs – except for the interest portion – are generally 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:

|                                   | <u>Dec. 31, 2002</u> | <u>Dec. 31, 2001</u> |
|-----------------------------------|----------------------|----------------------|
|                                   | ( million)           |                      |
| Service cost                      | 302                  | 265                  |
| Past service cost                 | 12                   | 10                   |
| Interest cost                     | 727                  | 669                  |
| Projected return on plan assets   | (607)                | (640)                |
| Amortization of actuarial amounts | 67                   | (34)                 |
| Plan curtailments and settlements | 20                   |                      |
|                                   | <u>521</u>           | <u>270</u>           |

The pension provisions for defined benefit plans are calculated in accordance with IAS 19 (Employee Benefits) by the projected unit credit method. The future benefit obligations are valued by actuarial methods on the basis of an 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 is therefore subject to the German Law on the Supervision of Private Insurance Companies. Since Bayer guarantees the commitments of the Bayer Pensionskasse, it is classified as a defined benefit plan for IAS and U.S. GAAP purposes.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

All defined benefit plans necessitate actuarial computations and valuations. These are based not only on a life expectancy but also on the following parameters, which vary from country to country according to economic conditions:

|   | <b>Parameters</b>    |                      |
|---|----------------------|----------------------|
|   | <b>Dec. 31, 2002</b> | <b>Dec. 31, 2001</b> |
| Discount rate   | 2.5%-7.0%            | 2.5%-7.0%            |
| Projected future remuneration increases                   | 2.0%-5.1%            | 2.0%-4.8%            |
| Projected future pension increases                        | 1.7%-3.3%            | 2.0%-3.3%            |
| Projected employee turnover (according to age and gender) | Empirical data       | Empirical data       |
| Projected return on plan assets                           | 1.5%-8.5%            | 2.0%-8.5%            |

The status of unfunded and funded defined benefit obligations, computed using the appropriate parameters, is as follows:

|  | <b>Dec. 31, 2002</b> | <b>Dec. 31, 2001</b> |
|--|----------------------|----------------------|
|  | ( million)           |                      |
| Defined benefit obligation                                       | (12,414)             | (11,303)             |
| Fair value of plan assets  | 7,506                | 8,126                |
| <b>Funded Status</b>   | <b>(4,908)</b>       | <b>(3,177)</b>       |
| Unrecognized transition liability (asset)                        | 2                    | 3                    |
| Unrecognized actuarial (gain) loss                               | 2,352                | 1,366                |
| Asset limitation due to uncertainty of obtaining future benefits | (1,187)              | (1,249)              |
| <b>Net recognized liability</b>                                  | <b>(3,741)</b>       | <b>(3,057)</b>       |

Of the defined benefit obligation, 4,267 million (2001: 3,929 million) relates to unfunded benefit obligations and 8,147 million (2001: 7,374 million) to funded benefit obligations. 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 reflected in other receivables, subject to the asset limitation specified in IAS 19 (Employee Benefits). In accordance with IAS 19, the amounts reflected in the balance sheet will be recognized in the income statement over the expected average remaining working lives of existing employees. The portion of the net actuarial gain or loss to be recognized in the income statement is determined by the corridor method. This procedure is also applied to the differences between the projected return on plan assets and the actual amount of minus 668 million (2001: minus 563 million).

The net liability under these defined benefit plans changed as follows:

|   | <b>Dec. 31, 2002</b> | <b>Dec. 31, 2001</b> |
|---|----------------------|----------------------|
|   | ( million)           |                      |
| Net liability recognized at the beginning of the year | (3,057)              | (3,151)              |
| Pension benefit (cost) income                         | (521)                | (270)                |
| Employer contributions                                | 351                  | 313                  |
| Divestitures  | (25)                 | 54                   |
| Change in scope of consolidation                      | (500)                | *                    |
| Plan curtailments and settlements                     | (10)                 | *                    |



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|  |                   |                   |
|--|-------------------|-------------------|
| Change in currency translation                 | 21                | (3)               |
|  | <u>          </u> | <u>          </u> |
| <b>Net liability recognized at end of year</b> | <b>(3,741)</b>    | <b>(3,057)</b>    |
|  | <u>          </u> | <u>          </u> |

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\* less than 1 million

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

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, particularly in the United States, to provide health care to their retirees. 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 retirees are also included, since these obligations are similar in character to pension obligations. Like pension obligations, they are valued in line with international standards. In 2002, provisions for early retirement and other post-retirement benefits amounted to 629 million (2001: 635 million). The resulting expenses for 2002 amounted to 114 million (2001: 63 million), comprising 87 million (2001: 23 million) for service cost, 57 million (2001: 58 million) for interest cost, 26 million (2001: 31 million) for projected return on plan assets and 4 million for actuarial gains (2001: 13 million for actuarial losses).

**[29] Other provisions**

Other provisions are valued in accordance with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets) and, where appropriate, IAS 19 (Employee Benefits), using the best estimate of the extent of the obligation. Long-term portions of provisions are discounted to their present value.

The Group sets up and maintains provisions for probable and on-going litigation cases when a reasonable estimate can be made. These provisions include all estimated legal fees and costs of settlement. The amounts are based upon written notification and reasonable settlement cost estimates provided by the Group's attorneys. Periodically, but at least quarterly, the provisions are reviewed with the Group's attorneys and updated.

The breakdown of provisions is as follows:

|  | Dec. 31, 2002 |                     | Dec. 31, 2001 |                     |
|--|---------------|---------------------|---------------|---------------------|
|  | Total         | Maturing<br>in 2003 | Total         | Maturing<br>in 2002 |
|  | ( million)    |                     |               |                     |
| Provisions for taxes                     | 650           | 426                 | 524           | 151                 |
| Provisions for personnel commitments     | 976           | 411                 | 923           | 451                 |
| Provisions for environmental remediation | 202           | 23                  | 200           | 19                  |
| Provisions for restructuring             | 230           | 189                 | 145           | 79                  |
| Provisions for trade-related commitments | 694           | 649                 | 438           | 426                 |
| Miscellaneous provisions                 | 720           | 559                 | 535           | 351                 |
|  | <b>3,472</b>  | <b>2,257</b>        | <b>2,765</b>  | <b>1,477</b>        |

Personnel commitments mainly include annual bonus payments, service awards and other personnel costs. Reimbursements to be received from the German government under the pre-retirement part-time work program are recorded as receivables and recognized in income as soon as the criteria for such reimbursements are fulfilled. Trade-related commitments mainly include rebates, as well as obligations relating to services already received but not yet invoiced.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

Changes in provisions were as follows:

|  | Jan. 1,<br>2002 | Changes in<br>scope of<br>consolidation | Currency<br>effects | Allocation   | Utilization    | Reversal     | Dec. 31,<br>2002 |
|--|-----------------|---|---------------------|--------------|----------------|--------------|------------------|
|  | ( million)      |   |                     |              |                |              |                  |
| Provisions for taxes                     | 524             | 91                                      | (52)                | 453          | (311)          | (55)         | 650              |
| Provisions for personnel commitments     | 923             | 113                                     | (43)                | 486          | (448)          | (55)         | 976              |
| Provisions for environmental remediation | 200             | 31                                      | (14)                | 35           | (45)           | (5)          | 202              |
| Provisions for restructuring             | 145             | 65                                      | (28)                | 196          | (140)          | (8)          | 230              |
| Provisions for trade-related commitments | 438             | 173                                     | (40)                | 496          | (336)          | (37)         | 694              |
| Miscellaneous provisions                 | 535             | 108                                     | (34)                | 717          | (557)          | (49)         | 720              |
|  | <u>2,765</u>    | <u>581</u>                              | <u>(211)</u>        | <u>2,383</u> | <u>(1,837)</u> | <u>(209)</u> | <u>3,472</u>     |

**Stock compensation program**

Bayer's three-tier stock compensation program was first launched in 2000. It consists 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 Program, Stock Incentive Program or 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. In the case of Module 2 of the Stock Participation Program, employees 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 blocked and may not be sold 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 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, he or she receives no shares under the program. At December 31, 2002, no options were exercisable. No options expired, nor were any options canceled, during fiscal 2002.

If it is not possible to issue shares under the Stock Option Program to participants at the time they are entitled to exercise their option rights, 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 of their own 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. In fiscal



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

2002, the bonus payment for 2000 was used as the reference base where this was higher. The number of incentive shares the participant receives depends on the number deposited at the launch of the program as well as on the overall performance of Bayer stock. Unlike the Stock Option Program, the Stock Incentive Program does not block 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:

*Issuance of incentive shares to employees in the Stock Incentive Program*

| Distribution date at end of | Incentive shares received<br>(per 10 deposited shares) |
|-----------------------------|--|
| Second year                 | 2  |
| Sixth year                  | 4  |
| Tenth year                  | 4  |
|                             | —  |
| Total                       | 10   |

Participants receive incentive shares only if Bayer stock has outperformed the Dow Jones EURO STOXX 50 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 normally participate in both Module 1 and Module 2. The Module 1 program, like the Stock Incentive Program, requires participants to deposit Bayer AG shares of their own in a special account. As with the Stock Incentive Program, participants in the Stock Participation Program may sell their deposited 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:

*Issuance of incentive shares to employees in the Stock Participation Program*

| Distribution date at end of | Incentive shares received<br>(per 10 deposited shares) |
|-----------------------------|--|
| Second year                 | 1  |
| Sixth year                  | 2  |
| Tenth year                  | 2  |
|                             | —  |
| Total                       | 5  |

In addition, under Module 2 each participant may purchase 10 Bayer AG shares per year at a tax-free discount. In 2002 this comprised a discount of 15.40 (2001: 15.34) per share to the market price. Participants may not include shares that they purchase under Module 2 among the shares they deposit under Module 1. Each participant may take up both modules up to a maximum aggregate value of half his or her performance-related bonus for the year he or she participates in the program. In fiscal 2002, in the case of managerial staff, the bonus payment for 2000 was used as the reference base where this was higher.

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The Stock Option Program, the Stock Incentive Program and Module 1 of the Stock Participation Program are accounted for as follows:  
Since participants are entitled to receive shares of Bayer AG stock bought in the

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**Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

capital market, subject to certain performance criteria, compensation expense for potential share distributions is recorded 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 related personnel provisions on December 31, 2002 amounted to 9 million.

For Module 2 of the Stock Participation Program, the difference between the quoted market price of Bayer AG stock and the discounted price paid by participants at the date of purchase is expensed immediately. During the year ended December 31, 2002, participants in Module 2 received 195,412 shares at a total price of 3.7 million, resulting in personnel expenses of 3.0 million. The discount to the price of Bayer AG stock was 45.1 percent.

**Environmental Provisions**

The Group's activities are subject to extensive laws and regulations in the jurisdictions in which it does business and maintains properties. Our 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 remediation of sites that we own, formerly owned or operated, where materials were produced specifically for us by contract manufacturers 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 remediation 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. In most cases remediation measures have already been initiated.

Provisions for environmental remediation as of December 31, 2002 amounted to 202 million (2001: 200 million). The material components of the provisions for environmental remediation costs primarily relate to land reclamation, rehabilitation of contaminated sites, recultivation of landfills, and redevelopment and water protection measures. The provisions for environmental remediation costs are recorded on a discounted basis where environmental assessments or clean-ups are probable, the costs can be reasonably estimated and no future economic benefit is expected to arise from these measures. The above amount of provisions represents anticipated future remediation payments totaling 270 million (2001: 265 million), discounted at risk-free rates of 0.5 percent to 5.5 percent.

These discounted amounts will be paid out over the period of remediation of the relevant sites, which is expected to be 15 years. Costs are estimated based on significant factors such as previous experience in similar cases, 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.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

It is difficult to estimate the future costs of environmental protection and remediation because of many uncertainties, particularly with regard to the status of laws, regulations and the information available about conditions in the various countries and at the individual sites. Subject to these factors, but taking into consideration our experience to date regarding environmental matters of a similar nature, we believe that the provisions 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 us to make expenditures in excess of established provisions, over an extended period of time and in a range of amounts that cannot be reasonably estimated. Management nevertheless 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 risks**

As a global company with a diverse business portfolio, the Bayer Group is exposed to numerous legal risks, particularly in the areas of product liability, patent disputes, tax assessments, competition and antitrust law, and environmental matters. The outcome of any current or future proceedings cannot be predicted with certainty. It is therefore possible that legal judgments could give rise to expenses that are not covered, or not fully covered, by insurers' compensation payments and could significantly affect our revenues and earnings.

Legal risks include in particular litigation in the United States following the voluntary withdrawal of the statin Lipobay®/Baycol®. By mid-February 2003, approximately 7,900 suits had been filed with Federal and state courts, including approximately 160 class actions. The aim of these class actions is to achieve class status at global, U.S. or state level for all who allege their health has been damaged due to the use of Baycol®, all other former Baycol® users for the purpose of subsequent medical monitoring, and all purchasers of Baycol® for reimbursement of the purchase price. Claims for punitive damages have also been filed. By mid-February 2003, voluntary settlement agreements had been reached in approximately 450 individual cases without concession of liability.

As a result of the voluntary withdrawal of products containing PPA, approximately 1,000 cases have been filed against Bayer Corporation in the United States, including class actions. Similarly, the claims primarily relate to compensation for alleged damage to health, entitlement to subsequent medical monitoring and reimbursement of the purchase price. Claims for punitive damages have also been filed.

In the event plaintiffs substantially prevail despite existing defense arguments, it is possible that Bayer could incur charges in excess of its insurance coverage. Due to the considerable uncertainty associated with these proceedings, it is currently not possible to more accurately estimate potential liability. Depending on the progress of the litigation, we will continue to regularly reconsider the need to establish provisions which may have a negative effect on financial results.

**Restructuring charges**

Restructuring charges of 427 million were incurred in 2002 for closures of facilities and relocation of business activities, including 196 million in provisions that are expected to be utilized as the respective restructuring measures are implemented. The total charges include 193 million in severance payments, a total 166 million in accelerated amortization/ depreciation and write-downs of intangible assets, property, plant and equipment, and 68 million in other expenses. Most of the charges taken for severance payments and other expenses in 2002 will lead to disbursements in 2003.

Restructuring was a major focus of activity in fiscal 2002. We continued the restructuring drives designed to improve the efficiency of our production sites in Hicksville, New York, and New Martinsville, West Virginia, U.S.A., taking 37 million in charges including 25 million in write-downs, 5 million in severance payments and 7 million in other expenses. Further charges of 30 million were incurred in connection with the closure of a production facility at our site in West Virginia. These comprised 10 million in write-offs of property, plant and equipment no longer utilized, 7 million in severance payments and 13 million in other charges.



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

The restructuring of our rubber production site in Sarnia, Ontario, Canada, resulted in write-downs of 41 million, severance payments of 7 million and other expenses of 19 million.

Of the restructuring charges incurred in 2002, 51 million related to the integration of the polyols business in the Polymers business area. This amount included 37 million in write-downs and 14 million in severance payments.

Further charges of 20 million relate to the restructuring of the Consumer Care Division in Elkhart, Indiana, U.S.A., including 8 million for write-downs of property, plant and equipment and 6 million for other expenses. A further 6 million comprised severance payments.

The restructuring of our styrenics business in North America led to charges of 9 million, including 5 million in write-downs and 4 million in other expenses.

Further ongoing restructuring programs to improve the profitability of the business areas and integrate acquisitions gave rise to total charges of 197 million, comprising 154 million in severance payments, 26 million in write-downs and 17 million in other expenses. The remaining charges relate to various small-scale restructuring programs.

Changes in provisions for restructuring were as follows:

|                                     | <b>Severance<br/>payments</b> | <b>Other<br/>Costs</b> | <b>Total</b> |
|-------------------------------------|-------------------------------|------------------------|--------------|
|                                     | ( million)                    |                        |              |
| <b>Balance at January 1, 2001</b>   | 86                            | 45                     | 131          |
| Additions                           | 57                            | 96                     | 153          |
| Utilization                         | (69)                          | (64)                   | (133)        |
| Reclassification to fixed assets    |                               | (13)                   | (13)         |
| Exchange differences                | 5                             | 2                      | 7            |
| <b>Balance at December 31, 2001</b> | 79                            | 66                     | 145          |
| Additions                           | 193                           | 68                     | 261          |
| Utilization                         | (99)                          | (48)                   | (148)        |
|                                     | —                             | —                      | —            |
| Exchange differences                | (15)                          | (13)                   | (28)         |
|                                     | —                             | —                      | —            |
| <b>Balance at December 31, 2002</b> | 158                           | 72                     | 230          |
|                                     | —                             | —                      | —            |

The other costs are mainly demolition expenses and other charges related to the abandonment of production facilities.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****[30] Financial obligations**

Financial obligations that are not the hedged item in a permissible hedge accounting relationship are carried at the higher of nominal and redemption value. They comprise the following:

|   | Dec. 31, 2002 |                     | Dec. 31, 2001 |                     |
|---|---------------|---------------------|---------------|---------------------|
|   | Total         | Maturing<br>in 2003 | Total         | Maturing<br>in 2002 |
|   | ( million)    |                     |               |                     |
| Debentures  | 6,742         | 477                 | 2,592         | 781                 |
| Liabilities to banks                              | 1,023         | 873                 | 1,122         | 829                 |
| Liabilities under lease agreements                | 708           | 121                 | 881           | 99                  |
| Liabilities from the issuance of promissory notes | 78            | 78                  | 84            | 84                  |
| Commercial paper                                  | 1,084         | 1,084               | 1,365         | 1,365               |
| Liabilities from derivative financial instruments | 86            | 85                  | 180           | 169                 |
| Other financial obligations                       | 438           | 123                 | 1,156         | 982                 |
|   | <b>10,159</b> | <b>2,841</b>        | <b>7,380</b>  | <b>4,309</b>        |

The maturities of financial obligations existing at December 31, 2002 were as follows:

| Maturing in   | million       |
|---------------|---------------|
| 2003          | 2,841         |
| 2004          | 186           |
| 2005          | 427           |
| 2006          | 82            |
| 2007          | 3,231         |
| 2008 or later | 3,392         |
|               | <b>10,159</b> |

Financial liabilities in U.S. dollars amounted to 3.3 billion (2001: 5.1 billion) and account for 32 percent (2001: 69 percent) of total financial liabilities.

Short-term borrowings (excluding the short-term portion of debentures) amounted to 2.4 billion (2001: 3.5 billion) with a weighted average interest rate of 7.9 percent (2001: 5.4 percent). The Bayer Group's financial liabilities are primarily unsecured and of equal priority.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

Debentures include the following:

| Effective<br>Rate                     | Stated<br>Rate |   | Volume            | Dec. 31, 2002 | Dec. 31, 2001 |
|---------------------------------------|----------------|---|-------------------|---------------|---------------|
| ( million)                            |                |   |                   |               |               |
| <b>Bayer AG</b>                       |                |   |                   |               |               |
| 4.103%                                | 5.375%         | Eurobonds 2002/2007                                 | EUR 3,000 million | 3,081         |               |
| 5.160%                                | 6.000%         | Eurobonds 2002/2012                                 | EUR 2,000 million | 2,102         |               |
| <b>Bayer Capital Corporation B.V.</b> |                |   |                   |               |               |
| 2.820%                                | 2.500%         | Bonds with Warrants Attached<br>1987/2002           | CHF 250 million   |               | 169           |
| <b>Bayer Corporation</b>              |                |   |                   |               |               |
| 6.735%                                | 6.500%         | Notes 1995/2002                                     | USD 400 million   |               | 454           |
| 5.410%                                | 7.125%         | Notes 1995/2015                                     | USD 200 million   | 191           | 227           |
| 2.166%                                | 2.250%         | Bonds 1997/2002                                     | CHF 200 million   |               | 135           |
| 1.200%                                | 3.500%         | Revenue Bonds 1997/2009                             | USD 20.6 million  | 20            | 23            |
| 4.000%                                | 4.000%         | Revenue Bonds 1997/2027                             | USD 25 million    |               | 28            |
| 6.288%                                | 6.650%         | Notes 1998/2028                                     | USD 350 million   | 334           | 397           |
| 6.288%                                | 6.200%         | Bonds 1998/2028                                     | USD 250 million   | 238           | 284           |
| 4.450%                                | 4.450%         | Money Market Puttable Reset<br>Securities 2001/2011 | USD 500 million   | 476           | 568           |
| <b>Bayer Ltd., Japan</b>              |                |   |                   |               |               |
| 1.270%                                | 3.750%         | Bonds 2000/2005                                     | CHF 400 million   | 300           | 270           |
| <b>Other debentures</b>               |                |   |                   |               |               |
|                                       |                |   |                   | 6,742         | 2,592         |

In April 2002 Bayer AG launched two Eurobond issues under its 8 billion European Medium Term Note (EMTN) program. One of these issues, in the nominal volume of 3,000 million, carries a 5.375% coupon and has a term of 5 years, maturing in 2007. Interest is payable annually in arrears. The issue price was 99.402%. The other Eurobond issue has a nominal volume of 2,000 million and a term of 10 years, so it matures in 2012. The bonds carry a 6% coupon. Again, all interest is payable annually in arrears. The issue price was 99.45%.

In July 1987, Bayer Capital Corporation B.V. issued CHF 250 million of 2.50% Bonds with warrants in Switzerland. The Bonds had a term of 15 years and matured in July 2002.

In October 1995, Bayer Corporation issued USD 400 million of 6.50% Notes to qualified institutional buyers. The Notes had a term of 7 years and matured in October 2002.

Also 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 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 April 1997, Bayer Corporation issued CHF 200 million of 2.25% Bonds in Switzerland. The Bonds had a term of 5 years and matured in April 2002.

In May 1997, Bayer Corporation issued USD 25 million of Revenue Bonds to U.S. institutional buyers. The interest rate was reset daily with monthly interest payments. The Revenue Bonds had a term of 30 years but were redeemed at the end of fiscal 2002.



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

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 not 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. The debt was swapped into yen at a floating interest rate.

In March 2001, Bayer Corporation issued USD 500 million of 4.45% Money Market Puttable Reset Securities to qualified institutional buyers, due in 2011. 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, on each anniversary date of the original marketing of the securities.

At December 31, 2002, the Group had approximately 6.2 billion (2001: 6.2 billion) of total lines of credit, of which 1.0 billion (2001: 1.1 billion) was used and 5.2 billion (2001: 5.1 billion) was unused and available for borrowing on an unsecured basis. 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 899 million (2001: 1,174 million), including 191 million (2001: 293 million) in interest, are to be made to the respective lessors in future years.

The liabilities associated with finance leases mature as follows:

|            | <u>Lease<br/>payments</u> | <u>Of which<br/>interest</u> | <u>Liability</u> |
|------------|---------------------------|------------------------------|------------------|
|            | ( million)                |                              |                  |
| 2003       | 151                       | 30                           | 121              |
| 2004       | 103                       | 28                           | 75               |
| 2005       | 100                       | 26                           | 74               |
| 2006       | 71                        | 17                           | 54               |
| 2007       | 53                        | 15                           | 38               |
| After 2007 | 421                       | 75                           | 346              |
|            | <u>899</u>                | <u>191</u>                   | <u>708</u>       |

Lease payments in 2002 in connection with operating leases amounted to 191 million (2001: 244 million; 2000: 162 million).

The other financial obligations include 4 million (2001: 85 million) to nonconsolidated subsidiaries.

**[31] Trade accounts payable**

Trade accounts are payable mainly to third parties; they are carried at amortized cost. As last year, the entire amount is due within one year.



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

Trade accounts payable as of December 31, 2002 include 2,534 million (2001: 1,991 million) maturing within one year and 0 million (2001: 2 million) maturing after one year. Of the total, 4 million (2001: 8 million) is payable to subsidiaries, 18 million (2001: 7 million) to other affiliated companies and 2,512 million (2001: 1,978 million) to other suppliers.

**[32] Miscellaneous liabilities**

Miscellaneous liabilities are carried at amortized cost. They are comprised as follows:

|   | Dec. 31, 2002 |                     | Dec. 31, 2001 |                     |
|---|---------------|---------------------|---------------|---------------------|
|   | Total         | Maturing<br>in 2002 | Total         | Maturing<br>in 2001 |
|   | ( million)    |                     |               |                     |
| Payroll liabilities                       | 442           | 330                 | 443           | 320                 |
| Tax liabilities                           | 346           | 346                 | 281           | 280                 |
| Liabilities for social expenses           | 170           | 170                 | 144           | 144                 |
| Accrued interest on liabilities           | 308           | 308                 | 125           | 125                 |
| Advance payments received                 | 20            | 20                  | 25            | 25                  |
| Liabilities from the acceptance of drafts | 17            | 17                  | 17            | 17                  |
| License liabilities                       | 57            | 57                  | 56            | 56                  |
| Other miscellaneous liabilities           | 890           | 890                 | 881           | 865                 |
|   | <b>2,230</b>  | <b>2,138</b>        | <b>1,972</b>  | <b>1,832</b>        |

Tax liabilities include not only Group companies' own tax liabilities, but also taxes withheld for paying over to the authorities on behalf of third parties.

Liabilities for social expenses include, in particular, social insurance contributions that had not been paid over by the closing date.

The other miscellaneous liabilities comprise mainly guarantees, commissions to customers, and expense reimbursements.

The total of miscellaneous liabilities includes 53 million (2001: 42 million) to non-consolidated subsidiaries and 4 million (2001: 3 million) to other affiliated companies.

**[33] Further Information on other liabilities**

Other liabilities (financial obligations, trade accounts payable and miscellaneous liabilities) include 6,593 million (2001: 1,779 million) maturing in more than five years.

Of the total, 146 million (2001: 334 million) was secured, mainly by mortgages totalling 90 million (2001: 256 million).

Included is 308 million (2001: 125 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.

Deferred income as of December 31, 2002 includes 97 million (2001: 111 million) in such grants and subsidies received from governments; the amount reversed and recognized in income was 19 million (2001: 17 million).



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****[35] Discontinuing operations**

The wholly owned subsidiary Haarmann & Reimer was sold to EQT Northern Europe Private Equity Funds effective September 30, 2002. Assets and liabilities as of December 31, 2002 therefore do not include any amounts pertaining to discontinuing operations.

In 2001, assets of 820 million and liabilities of 233 million related to this business group. The assets comprised 419 million in noncurrent assets, 384 million in current assets and 17 million in liquid assets, while the liabilities consisted of 74 million in pension provisions, 43 million in other provisions, 12 million in financial liabilities and 104 million in miscellaneous liabilities.

**[36] Commitments and contingencies**

Contingent liabilities as of December 31, 2002 almost all of which exist toward third parties amount to 245 million. They result from:

|                                   | <u>Dec. 31, 2002</u> | <u>Dec. 31, 2001</u> |
|-----------------------------------|----------------------|----------------------|
|                                   | ( million)           |                      |
| Issuance and endorsement of bills | 6                    | 22                   |
| Guarantees                        | 104                  | 53                   |
| Warranties                        | 135                  | 118                  |
|                                   | <u>245</u>           | <u>193</u>           |

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 contractual terms encountered 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 payments relating to operating leases total 619 million (2001: 557 million). The respective payment obligations mature as follows:

|               | <u>million</u> |
|---------------|----------------|
| 2003          | 191            |
| 2004          | 140            |
| 2005          | 85             |
| 2006          | 61             |
| 2007          | 49             |
| 2008 or later | 93             |
|               | <u>619</u>     |

Financial commitments resulting from orders already placed under purchase agreements related to planned or ongoing capital expenditure projects total 286 million (2001: 354 million). The respective payments are due almost entirely in 2003.

Under collective agreements on part-time work arrangements for certain older employees, we have to accept applications for such arrangements from a certain quota of the work force. Other financial obligations that may arise from such work arrangements in the future cannot be quantified, since the quota has already been exceeded.

In addition, the Group has entered into research agreements with a number of third parties under which Bayer has agreed to fund various research projects or has assumed other commitments based on the achievement of certain milestones or other specific conditions. The total amount of such funding and other commitments is

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570 million (2001: 732 million). At December 31, 2002, the remaining payments expected to be made to these parties, assuming the milestones or other conditions are met, were as follows:

| <u>Maturing in</u> | <u>million</u> |
|--------------------|----------------|
| 2003               | 208            |
| 2004               | 153            |
| 2005               | 89             |
| 2006               | 74             |
| 2007               | 36             |
| 2008 or later      | 10             |
|                    | <u>570</u>     |

**[37] Related Parties**

Transactions with related persons and companies, which are invariably performed on an arm's length basis, are mainly trade transactions. The related receivables and payables have been included in the respective notes to the financial statements as required by European Union directives. The revenue and expenses related to these transactions are immaterial to the consolidated financial statements as a whole.

**[38] Financial Instruments**

Financial Instruments entail contractual claims and 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. In compliance with IAS 39 (Financial Instruments: Recognition and Measurement), asset instruments are categorized as held for trading, held to maturity, or available for sale and, accordingly, recognized at fair value or amortized cost. Changes in fair value are recognized in stockholders' equity. In the event of impairment losses, the assets are written down and the write-downs are recognized in income. Financial instruments constituting liabilities are carried at amortized cost.

**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 securities included in investments and of marketable securities are derived from their market prices and reflected in the financial statements. Financial liabilities are valued mainly by discounting future cash flows, or in some cases on the basis of quoted prices. Their total fair value reflected in the consolidated financial statements is 24 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 values and carrying amounts.

**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.



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****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 from 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.

The position at year end was as follows:

|  | <b>Dec. 31, 2002</b> | <b>Dec. 31, 2001</b> |
|--|----------------------|----------------------|
|  | ( million)           |                      |
| Primary asset instruments exposed to currency risk     | 3,564                | 3,657                |
| Primary liability instruments exposed to currency risk | 3,154                | 2,314                |
| Amount naturally hedged                                | (3,621)              | (3,011)              |
| Amount hedged through derivative financial instruments | (2,720)              | (2,527)              |
| <b>Residual unhedged currency exposure</b>             | <b>377</b>           | <b>433</b>           |

In some cases forecasted transactions are also hedged to further reduce the related anticipated currency risk. At December 31, 2002 the total notional amount of the hedging instruments concerned mainly forward exchange contracts for the sale of U.S. dollars or Japanese yen and all maturing before December 31, 2003 was 498 million, which is not included in the hedged amount of 2.7 billion. These hedging relationships amount to cash flow hedges as defined in IAS 39. The contracts are concluded monthly so that they run for one year and mature in the middle of each month. On these dates the results of the transactions are recognized in income. In 2002, the differences resulting from fair value measurement and initially recognized in equity, but not in net income, amounted to 16 million.

On the asset side, 56 percent of currency risks relate to the U.S. dollar and 5 percent to the Japanese yen. On the liabilities side, 52 percent of foreign currency risks relate to the U.S. dollar. The remaining exposure involves liabilities in British pounds (11 percent), Japanese yen (2 percent) and a number of other currencies outside the dollar and euro zones. The U.S. dollar accounts for 68 percent of the asset volume hedged through derivative financial instruments, followed by the yen which accounts for 6 percent. Of the hedged liabilities, 54 percent are in U.S. dollars, 24 percent in British pounds and the remaining 22 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. When economically hedging exchange rate risk on recorded foreign currency operating items, we do not aim for hedge accounting treatment. Changes in the fair values of the respective hedging instruments are therefore recognized immediately in income.

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 are exposed to currency risk, they are hedged through derivative financial instruments.

**Interest rate risk**

An interest rate risk is the possibility that the value of a financial instrument will change due to movements in market rates of interest. It applies mainly to receivables and payables with maturities of over one year.



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

Items with such long maturities are not of material significance on the operating side but are relevant in the case of investments and financial liabilities. 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 foreign 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. Regular way purchases and sales of financial assets are recorded at the settlement date in compliance with IAS 39. The main objective in using derivative financial instruments is to reduce fluctuations in cash flows and earnings associated with changes in interest and foreign exchange rates.

**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 volume of the contracted purchases or sales of the respective derivatives.

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, 2002   | Dec. 31, 2001 | Dec. 31, 2002 | Dec. 31, 2001 |
|   | ( million)      |               |               |               |
| Forward foreign exchange contracts  | 2,979           | 2,749         | 105           | (28)          |
| Currency options  | 239             | 279           | 9             | *             |
| Interest rate hedging contracts (including interest and principal currency swaps) | 5,799           | 4,485         | 365           | (60)          |
|   | <u>9,017</u>    | <u>7,513</u>  | <u>479</u>    | <u>(88)</u>   |

\* less than 1 million

Gains and losses from changes in fair values are immediately recognized in income, except where the strict conditions for the recognition of a hedge accounting relationship are present. This is also the case with fair value hedges, where the gain or loss on both the hedging contract and the hedged item are recognized in income. However, gains or losses incurred through cash flow hedge accounting are recognized initially in equity and subsequently in the income for the year in which the term of the respective hedging contract is completed.





**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****Credit risk**

Credit risk exposure is 578 million (2001: 139 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 3.2 billion (2001: 2.7 billion) mature within one year, while instruments in the amount of only 8 million (2001: 0.3 billion) have longer remaining terms.

**Interest rate risk**

Short-term interest rate hedging contracts (including interest and principal currency swaps) total 0.5 billion (2001: 2.0 billion). Those maturing after more than one year total 5.3 billion (2001: 2.5 billion).

**Hedge accounting**

Most interest rate swaps and interest and principal currency swaps are performed to allow the company to maintain a target range of floating rate debt. All swap contracts amount to permissible hedge accounting relationships and there is no ineffectiveness related to these hedges. Changes in the fair values of derivatives that hedge interest rate risk are recorded as interest expense for the respective periods, as are offsetting changes in the fair value of the related hedged debt items. Fair value hedge accounting is not used in any other circumstances. Some interest rate or interest and principal currency instruments involve a swap from variable to fixed interest rates. Such contracts are accounted for as cash flow hedges as defined in IAS 39. However, most of the cash flow hedges are entered into to protect future operating revenues against currency fluctuations, as explained earlier.

**[39] Net cash provided by operating activities**

The cash flow statement starts from the operating result. The gross cash flow for 2002 of 3.0 billion (2001: 2.9 billion; 2000: 4.2 billion) is the cash surplus from operating activities before any changes in working capital. Breakdowns of the gross cash flow by segment and region are given in the table on pages F-19 to F-22. The net cash flow of 4.4 billion (2001: 3.9 billion; 2000: 3.1 billion) takes into account changes in working capital.

**[40] Net cash provided by (used in) investing activities**

Additions to property, plant and equipment and intangible assets in 2002 resulted in a cash outflow of 2.2 billion (2001: 2.6 billion; 2000: 2.6 billion). Cash outflows for acquisitions, primarily that of Aventis CropScience, amounted to 7.8 billion (2001: 0.5 billion; 2000: 4.1 billion). Sales of property, plant and equipment led to a cash inflow of 2.2 billion (2001: 0.5 billion; 2000: 0.3 billion), while the cash inflow from the sale of investments and from interest and dividend receipts, including marketable securities, amounted to 1.3 billion (2001: 0.4 billion; 2000: 0.3 billion).

**[41] Net cash provided by (used in) financing activities**

The main factor in the net cash inflow of 2.2 from financing activities in 2002 (2001: net cash outflow of 1.5 billion; 2000: net cash inflow of 0.8 billion) was 3.5 billion in net borrowings. Dividend payments for and interest payments totaled 1.4 billion (2001: 1.5 billion; 2000: 1.3 billion).

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****[42] Discontinuing operations**

Discontinuing operations affected the Group cash flow statements as follows:

|   | <u>Erdölchemie</u> |             | <u>Haarmann &amp; Reimer</u> |             |             | <u>DyStar</u> |              | <u>Total</u> |             |
|---|--------------------|-------------|------------------------------|-------------|-------------|---------------|--------------|--------------|-------------|
|   | <u>2001</u>        | <u>2000</u> | <u>2002</u>                  | <u>2001</u> | <u>2000</u> | <u>2000</u>   | <u>2002</u>  | <u>2001</u>  | <u>2000</u> |
|   | ( million)         |             |                              |             |             |               |              |              |             |
| Net cash provided by operating activities           | 13                 | 38          | 87                           | 118         | 84          | 66            | 87           | 131          | 188         |
| Net cash provided by (used in) investing activities | 474                | (87)        | 1,286                        | (164)       | (116)       | (65)          | 1,286        | 310          | (268)       |
| Net cash provided by (used in) financing activities | 0                  | 0           | 1                            | 77          | (7)         | 18            | 1            | 77           | 11          |
| <b>Change in cash and cash equivalents</b>          | <b>487</b>         | <b>(49)</b> | <b>1,374</b>                 | <b>31</b>   | <b>(39)</b> | <b>19</b>     | <b>1,374</b> | <b>518</b>   | <b>(69)</b> |

**[43] Cash and cash equivalents**

Cash and cash equivalents as of December 31, 2002 amounted to 0.8 billion (2001: 0.7 billion; 2000: 0.5 billion). In accordance with IAS 7 (Cash Flow Statements), this item also includes financial securities with original maturities of up to three months. The liquid asset of 0.8 billion (2001: 0.8 billion; 2000: 0.7 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:

|   | <u>Notes</u> | <u>2002</u>            | <u>2002</u>       | <u>2001</u>       | <u>2000</u>       |
|---|--------------|------------------------|-------------------|-------------------|-------------------|
|   |              | <u>(\$ million(1))</u> | <u>( million)</u> | <u>( million)</u> | <u>( million)</u> |
| <b>Net income reported under IAS</b>                        |              | <b>1,111</b>           | <b>1,060</b>      | <b>965</b>        | <b>1,816</b>      |
| Fair value of derivative financial instruments              | a            |                        |                   | (95)              | 95                |
| Available for sale securities                               | b            | 31                     | 30                | (30)              |                   |
| Business combinations                                       | c            | 215                    | 205               | (63)              | (128)             |
| Pensions  | d            | (25)                   | (24)              | (24)              | (24)              |
| In-process research and development                         | e            | (139)                  | (133)             |                   |                   |
| Asset impairments   | f            | 215                    | 205               |                   |                   |
| Other   | g            | (34)                   | (33)              | (5)               | 33                |
| Deferred tax effect on U.S. GAAP adjustments                |              | (35)                   | (33)              | 52                | (9)               |
| <b>Net income reported under U.S. GAAP</b>                  |              | <b>1,339</b>           | <b>1,277</b>      | <b>800</b>        | <b>1,783</b>      |
| <b>Basic and diluted earnings per share under U.S. GAAP</b> |              | <b>1.83</b>            | <b>1.75</b>       | <b>1.10</b>       | <b>2.44</b>       |

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

|   | Notes | December 31,    |               |               |
|---|-------|-----------------|---------------|---------------|
|   |       | 2002            | 2002          | 2001          |
|   |       | (\$ million(1)) | ( million)    | ( million)    |
| <b>Stockholders equity reported under IAS</b>       |       |                 |               |               |
| Fair value of derivative financial instruments      | a     | 16,079          | 15,335        | 16,922        |
| Available for sale securities                       | b     |                 |               |               |
| Business combinations                               | c     | 943             | 900           | 786           |
| Pensions  | d     | 765             | 730           | 881           |
| In-process research and development                 | e     | (152)           | (145)         | (15)          |
| Asset impairments                                   | f     | 215             | 205           |               |
| Other   | g     | 88              | 84            | 120           |
| Deferred tax effect on U.S. GAAP adjustments        |       | (393)           | (375)         | (394)         |
|   |       | <u>17,545</u>   | <u>16,734</u> | <u>18,300</u> |
| <b>Stockholders equity reported under U.S. GAAP</b> |       |                 |               |               |
|   |       | <u>17,545</u>   | <u>16,734</u> | <u>18,300</u> |

|  |  | December 31,    |               |               |
|--|--|-----------------|---------------|---------------|
|  |  | 2002            | 2002          | 2001          |
|  |  | (\$ million(1)) | ( million)    | ( million)    |
| <b>Components of stockholders equity in accordance with U.S. GAAP:</b>   |  |                 |               |               |
| Capital stock of Bayer AG  |  | 1,961           | 1,870         | 1,870         |
| Capital reserves of Bayer AG   |  | 3,085           | 2,942         | 2,942         |
| Retained earnings  |  | 13,399          | 12,780        | 12,270        |
| Accumulated other comprehensive income:  |  |                 |               |               |
| Unrealized market value adjustment on securities available for sale (net of taxes of \$14 million, 13 million, 42 million) |  | (21)            | (20)          | 561           |
| Unrealized market value adjustment on cash flow hedges (net of taxes of \$6 million, 6 million, 1 million)                 |  | (12)            | (11)          | 1             |
| Additional minimum pension liability (net of taxes of \$207 million, 197 million, and 171 million)                         |  | (297)           | (283)         | (244)         |
| Translation differences  |  | (570)           | (544)         | 900           |
|  |  | <u>17,545</u>   | <u>16,734</u> | <u>18,300</u> |
| <b>Total</b>   |  | <u>17,545</u>   | <u>16,734</u> | <u>18,300</u> |

(1) The 2001 U.S. dollar figures have been translated at an exchange rate of 1.0000 = \$1.0485. 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 U.S. GAAP. The Group uses foreign currency forward contracts for hedging of anticipated transactions. Prior to the adoption of IAS 39 and SFAS 133, these forward contracts were recorded at the lower of cost or market value under IAS and marked to market through the income statement in accordance with U.S. GAAP applicable at the time. The 95 million difference between IAS and U.S. GAAP net income for the year ended December 31, 2000 arose from the recognition of a 95 million gain relating to the anticipated cash flow forward contracts under U.S. GAAP.

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During 2001, the fair value of the foreign currency forward contracts that had been entered into during 2000 declined to 68 million. As the hedged anticipated transactions were realized during 2001, this 68 million was recorded as gain under IAS. Conversely, under U.S. GAAP, the 27 million decline in value was recognized as an

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

expense. Therefore, the reconciling item between net income under IAS and U.S. GAAP for the year ended December 31, 2001 of 95 million results from the difference between the 68 million gain under IAS compared to the 27 million expense under U.S. GAAP. Subsequent to the adoption of IAS 39 and SFAS 133, the accounting for new foreign currency forward contracts for hedging of anticipated transactions is consistent between IAS and U.S. GAAP.

**b. Available for Sale Securities**

Under IAS, unrealized losses on available-for-sale financial assets are recorded in income only when the decline in market value is considered permanent. Under U.S. GAAP, unrealized losses are recorded in income when they are judged to be other-than-temporary. Bayer's policy is to evaluate all declines in market value if they have exceeded 20% of the carrying value over a continual period of 6 months. If there is no indication of a significant increase in fair value in the short-term, the declines are considered other-than-temporary. Principally, other declines in fair value that do not meet these criteria may be considered other-than-temporary depending upon the circumstances surrounding the underlying investment.

Prior to the adoption of IAS 39 in 2001, investments in debt and certain equity securities were reflected in the balance sheet at nominal value less any necessary write-downs under IAS. Under 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. The adjustment recorded in 2001 reflects an other-than-temporary decline for U.S. GAAP purposes where no impairment was recognized under IAS; therefore, the amounts were reclassified from other comprehensive income to net income. The adjustment in 2002 reflects the recognition under IAS of the impairment that had been recognized under U.S. GAAP in 2001.

**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, in 2001 and 2000, the pre-1995 goodwill is being amortized through the income statement over estimated useful lives between 20 and 40 years. In addition to the normally recurring amortization expense on these amounts during 2001, the Group wrote-off 22 million of goodwill capitalized under U.S. GAAP. The write-off was due to the disposal of the entity to which the goodwill relates.

In 2002, as required by the newly implemented SFAS 142, the Group ceased amortization of its goodwill recorded under IAS, its indefinite-lived intangible asset, the Bayer Cross, and the pre-1995 goodwill recognized for U.S. GAAP purposes. The adjustment reverses the amortization recorded under IAS for the Group's IAS goodwill of 194 million and the Bayer Cross indefinite-lived intangible asset of 11 million.

**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. Using an accommodation of the United States Securities and Exchange Commission (SEC) 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 required SFAS 87 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.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

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:

|   | 2002           | 2001           | 2000           |
|---|----------------|----------------|----------------|
|   | ( million)     | ( million)     | ( million)     |
| <b>Pension benefits:</b>                                  |                |                |                |
| Liability recognized for IAS                              | (3,741)        | (3,057)        | (3,151)        |
| Asset limitation under IAS 19                             | 1,187          | 1,249          | 1,249          |
| Additional minimum liability under SFAS No. 87            | (480)          | (415)          | (215)          |
| Difference in unrecognized transition obligation          | 23             | 47             | 71             |
|   | <u>(3,011)</u> | <u>(2,176)</u> | <u>(2,046)</u> |
| <b>Liability recognized for U.S. GAAP</b>                 |                |                |                |
| Net periodic benefit cost recognized for IAS              | 521            | 270            | 260            |
| Amortization of transition obligation                     | 24             | 24             | 24             |
|   | <u>545</u>     | <u>294</u>     | <u>284</u>     |
| <b>Net periodic benefit cost recognized for U.S. GAAP</b> |                |                |                |

**e. In-process Research and Development**

IAS does not consider that in-process research and development ( IPR&D ) is an intangible asset that can be separated from goodwill. Under U.S. GAAP it is considered to be a separate asset that needs to be written-off immediately following an acquisition as the feasibility of the acquired research and development has not been fully tested and the technology has no alternative future use.

During 2002, IPR&D has been identified for U.S. GAAP purposes in connection with the Aventis CropScience and Visible Genetics acquisitions. Fair value determinations were used to establish 133 million of IPR&D for both acquisitions, which was expensed immediately. The independent appraisers used a discounted cash flow approach and relied upon information provided by Group management. The discounted cash flow approach uses the expected future net cash flows, discounted to their present value, to determine an asset's current fair value.

As a whole, the income booked for the reversal of the amortization of IPR&D recorded under IAS as a component of other operating expense and selling expense amounted to 5 million in 2002.

**f. Asset Impairments**

While the triggering events under both IAS and U.S. GAAP that require an impairment test on long-lived assets are the same, there is a difference in the indicator of an impairment. Under IAS, impairments on long-lived assets are recognized when the recoverable amount of an asset is less than its carrying amount. An asset's recoverable amount is the higher of its net selling price, which is the sales price less costs of disposal, and value in use, which is the estimated discounted cash flows from the use and disposal of the asset. Under U.S. GAAP, a two-step model is used. The first step is an analysis of an asset's carrying value as compared to the sum of its undiscounted cash flows. Only if the undiscounted cash flows are less than the asset's carrying value will an impairment be indicated, in which case, the loss is measured as the difference between the asset's carrying value and its fair value.

In 2002, the carrying values of long-lived assets of the Polyether business were adjusted for a 205 million impairment loss under IAS. However, as the undiscounted cash flows of the Polyether business were greater than its carrying value, under U.S. GAAP no further impairment test was required and; therefore, no impairment loss was recorded.

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**Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

**g. Other**

There are also differences between IAS and U.S. GAAP in relation to (1) restructuring provisions, (2) equity compensation and (3) other employee benefits. None of the differences are individually significant and they are therefore shown as a combined total.

**Additional U.S. GAAP disclosures**

***Purchase Accounting***

On June 1, 2002, Bayer acquired 100% of the issued share capital of Aventis CropScience for 7.8 billion, the sum of the cash consideration and the assumption of debt. The results of Aventis CropScience's operations have been included in the Group's consolidated financial statements since that date. Aventis CropScience is one of the leading companies in the areas of crop protection, biotechnology and agrochemical specialties. The purchase of Aventis CropScience, which was combined with Bayer CropScience, is intended to allow Bayer CropScience to become one of the leading competitors in the industry, by achieving an outstanding product offering to customers on a global level, and to substantially boost its earning power. Bayer CropScience will take advantage of synergies and economies of scale to meet market demands and competitive challenges. The business will cover all agrochemical activities as well as biotechnology and seeds.

As a result of the fair value appraisal, increases in the values of Aventis CropScience's net assets were recognized and fair market values attributed to its other intangible assets and in-process research and development, together with associated deferred taxation effects. The difference between the cost of acquisition and the fair value of assets less liabilities of Aventis CropScience has been recognized as goodwill. The amount allocated to in-process research and development was written off at the date of acquisition, as the technological feasibility has not yet been established and it has no alternative future use, as required under U.S. GAAP. Fair value adjustments to the recorded amount of inventory were expensed in 2002 and additional amortization and depreciation was recorded in respect of the fair value adjustments to tangible and intangible assets over the period of their respective economic useful lives. In accordance with SFAS 142, goodwill will not be amortized, but instead tested on an annual basis for impairment.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

The adjustments to the assets and liabilities of Aventis CropScience to reflect the fair values and allocation of the excess purchase consideration over the fair value of net assets acquired and liabilities assumed, based on an independent appraisal prepared using estimates and assumptions provided by management, are summarized in the table below:

|  | ( million)     |
|--|----------------|
| <b>At June 1, 2002</b>                   |                |
| Current Assets:                          |                |
| Trade accounts receivable                | 1,660          |
| Inventory                                | 1,334          |
| Other assets                             | 980            |
| Noncurrent Assets:                       |                |
| Property, plant and equipment            | 874            |
| Identifiable Intangible assets:          |                |
| Existing Technology/ Patents             | 2,239          |
| Trademarks and trade names/ Registration | 742            |
| Assets held for Sale                     | 1,138          |
| In-process R&D projects                  | 129            |
|  | <hr/>          |
| Subtotal Intangible Assets               | 4,248          |
| Investments                              | 186            |
| Goodwill                                 | 2,153          |
|  | <hr/>          |
| <b>Total Assets Acquired</b>             | <b>11,435</b>  |
|  | <hr/>          |
| Trade liabilities                        | (488)          |
| Other liabilities                        | (721)          |
| Pensions                                 | (578)          |
| Borrowings                               | (2,545)        |
| Deferred taxes                           | (1,365)        |
|  | <hr/>          |
| <b>Total Liabilities Assumed</b>         | <b>(5,697)</b> |
|  | <hr/>          |
| <b>Net assets acquired</b>               | <b>5,738</b>   |
|  | <hr/>          |

Of the 4,248 million of acquired identifiable intangible assets, 1,138 million was assigned to assets to be sold, as mandated by regulatory conditions imposed in connection with the acquisition of Aventis CropScience, and 129 million to research and development assets that were written off at the date of acquisition. The remaining 2,981 million of acquired intangible assets have a weighted average useful life of approximately 13 years which was determined based on management's appraisal of each asset's remaining useful life. The intangible assets that comprise that amount have weighted average useful lives as noted in the table below:

|                            |                 |
|----------------------------|-----------------|
| Existing Technology        | 12 years        |
| Patents                    | 11 years        |
| Trademarks and trade names | 14 years        |
| Registration               | 13 years        |
| <b>Total</b>               | <b>13 years</b> |

The 2,153 million of goodwill was assigned to the CropScience business segment. The goodwill is not deductible for tax purposes.

The following unaudited pro forma financial information presents the combined results of operations of the Group and Aventis CropScience as if the acquisition had occurred as of the beginning of the periods presented, based on U.S. GAAP applicable at that time. The unaudited pro forma financial information is not intended to represent or be indicative of the consolidated results of operations or financial condition of the



Group that would

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

have been reported had the acquisition been completed as of the dates presented, and should not be taken as representative of the future consolidated result of operations or financial condition of the Group. Pro forma results were as follows for the fiscal years ended December 31, 2002 and 2001:

| <b>Pro forma Financial Information</b> | <b>2002</b>        | <b>2001</b> |
|--|--------------------|-------------|
|  | <b>(unaudited)</b> |             |
|  | <b>( million)</b>  |             |
| Revenue                                | 30,789             | 33,407      |
| Operating result                       | 2,442              | 1,230       |
| Net income                             | 1,561              | 385         |
| Earnings per share                     | 2.14               | 0.53        |

The unaudited pro forma financial information above includes the following material, non-recurring charges:

Reversal of purchase accounting adjustments of 258 million, net of tax of 194 million, in 2002

Reversal of purchased IPR&D charges of 94 million, net of tax of 35 million, in 2002, and recognition of those charges in 2001

Reversal of restructuring charges of 38 million, net of tax of 22 million, in 2002, and recognition of those charges in 2001

Additional inventory charges related to the acquisition step-up in basis of 138 million, net of tax of 78 million, in 2001

Amortization of intangibles of 186 million, net of tax of 87 million, in 2002

Amortization of intangibles and goodwill of 204 million, net of tax of 87 million, in 2001

The revenue, operating result and net income for the assets held for sale are included in the 2002 and 2001 figures

**Goodwill and Other Intangible Assets**

Effective January 1, 2002, the Group began applying the provisions of SFAS 142, *Goodwill and Other Intangible Assets*. SFAS 142 requires that goodwill no longer be amortized over its estimated useful life. The Group must instead identify and value its reporting units for the purpose of assessing, at least annually, potential impairment of goodwill allocated to each reporting unit. Goodwill must be evaluated for impairment between these annual tests if events or changes in circumstances indicate that goodwill might be impaired.

The testing of goodwill for impairment involves two steps:

The first step is to compare each reporting unit's fair value with its carrying amount including goodwill. If a reporting unit's carrying amount exceeds its fair value, this indicates that its goodwill may be impaired and the second step is required.

The second step is to compare the implied fair value of the reporting unit's goodwill with the carrying amount of its goodwill. The implied fair value is computed by allocating the reporting unit's fair value to all of its assets and liabilities in a manner that is similar to a purchase price allocation in a business combination in accordance with SFAS 141. The remaining unallocated fair value amount is the implied fair value of the reporting unit's goodwill. If the implied fair value of goodwill is less than its carrying value, the difference is recorded as an impairment.

The Group also reassessed the useful lives of existing recognized intangible assets. Intangible assets deemed to have indefinite lives are no longer amortized, instead they are tested annually for potential impairment, or more frequently if events or changes in circumstances indicate that the asset might be impaired. Intangible assets with finite lives continue to be amortized over their useful lives. No changes in useful lives were made as a result of this reassessment.



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

Since the early 1900s, the Bayer Cross has served to distinguish the Bayer name. 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 respects to products in the manufacturing industry and, in 1994, reacquired the full U.S. rights to its name and trademarks, including the Bayer Cross. We believe that the use of the Bayer Cross by the business groups distinguishes Bayer products, particularly in the U.S. markets. The Bayer Cross is utilized on substantially all products sold worldwide. There is no regulatory or legal life imposed on the Bayer Cross. Bayer protects the value of the Bayer Cross through its policy of not licensing its use to any parties outside the Bayer Group. Based on these reasons, the value associated with the Bayer Cross is assessed to have an indefinite life and, accordingly, will not be amortized. The intangible assets, related to the Bayer Cross (primarily trademarks), had a total carrying value of 139 million as of January 1, 2002.

The Group has identified its reporting units as their business groups. Upon implementation of SFAS 142, transitional impairment testing was performed as of the beginning of the year in accordance with the requirements of the Standard. This testing resulted in no impairment of the Group's goodwill and indefinite-lived intangible assets.

The adoption of SFAS 142, required the Group to reclassify as goodwill any intangible assets that were acquired in business combinations completed before July 1, 2001, that do not meet the criteria for separate recognition apart from goodwill under SFAS 141. In addition any intangible asset acquired that meets the new separability criteria but had been previously included in the amount reported as goodwill must be reclassified and accounted for as an asset apart from goodwill. Application of these standards did not result in any reclassifications.

The following table provides details of the Group's total purchased intangible assets and related accumulated amortization:

|                                      | <u>Patents</u> | <u>Trademarks</u> | <u>Marketing,<br/>Selling and<br/>Access Rights</u> | <u>Other</u> | <u>Total</u> |
|--------------------------------------|----------------|-------------------|---|--------------|--------------|
|                                      |                |                   | ( million)  |              |              |
| Gross Carrying amounts, Dec 31, 2001 | 1,351          | 704               | 2,249   | 985          | 5,289        |
| Accumulated Amortization             | (253)          | (149)             | (518)   | (324)        | (1,244)      |
| Net book value, Dec 31, 2001         | <u>1,098</u>   | <u>555</u>        | <u>1,731</u>  | <u>661</u>   | <u>4,045</u> |
| Gross Carrying amounts, Dec 31, 2002 | 1,426          | 1,009             | 4,409   | 1,098        | 7,942        |
| Accumulated Amortization             | (344)          | (212)             | (783)   | (423)        | (1,762)      |
| Net book value, Dec 31, 2002         | <u>1,082</u>   | <u>797</u>        | <u>3,626</u>  | <u>675</u>   | <u>6,180</u> |

The Group recorded aggregate amortization expense of 852 million, 553 million, and 344 million in 2002, 2001, and 2000, respectively, on its intangible assets. In 2002 additional amortization of 55 million is included. This incremental amortization is due to the reorganization of the Group, which will require certain entities to run their business on individual ERP-Systems, thus, significantly shortening the useful life of the current ERP-System.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

Based on the current amount of intangible assets, subject to amortization, estimated amortization expenses for each of the five succeeding fiscal years are as follows:

| <b>Estimated Aggregated<br/>Amortization Expense</b> | <b>( million)</b> |
|--|-------------------|
| 2003   | 783               |
| 2004   | 760               |
| 2005   | 756               |
| 2006   | 750               |
| 2007   | 745               |

As acquisitions and dispositions occur in the future, actual amounts will vary.

The carrying amount of goodwill had the following changes in 2002 in each of Bayer's segments:

|   | <b>Pharmaceuticals,<br/>Biological<br/>Products</b> | <b>Consumer Care,<br/>Diagnostics</b> | <b>Animal<br/>Health</b> | <b>CropScience</b> | <b>Plastics,<br/>Rubber</b> |
|---|---|---------------------------------------|--------------------------|--------------------|-----------------------------|
|   | <b>( million)</b>                                   |                                       |                          |                    |                             |
| <b>Book value as of January 1, 2002</b>   | 1   | 787                                   | 1                        | 148                | 335                         |
| Goodwill additions                        |   | 8                                     |                          | 2,173              |                             |
| Goodwill impairment                       |   |                                       |                          |                    |                             |
| Other changes*                            |   | (132)                                 |                          | 32                 | (17)                        |
| <b>Book value as of December 31, 2002</b> | 1   | 663                                   | 1                        | 2,353              | 318                         |

|   | <b>Polyurethanes,<br/>Coatings,<br/>Fibers</b> | <b>Chemicals</b> | <b>Discontinuing<br/>Operations</b> | <b>Bayer<br/>Group</b> |
|---|--|------------------|-------------------------------------|------------------------|
|   | <b>( million)</b>                              |                  |                                     |                        |
| <b>Book value as of January 1, 2002</b>   | 236  | 170              | 82                                  | 1,760                  |
| Goodwill additions                        | 16   | 13               |                                     | 2,210                  |
| Goodwill impairment                       |  |                  |                                     |                        |
| Other changes*                            | (43)   | (25)             | (82)                                | (267)                  |
| <b>Book value as of December 31, 2002</b> | 209  | 158              |                                     | 3,703                  |

\* Other changes include transfers and exchange rate differences

If the Group accounted for goodwill and indefinite-lived intangibles under the nonamortization method of SFAS 142, the impact on reported US GAAP results would have been as follows:

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| For the year ended Dec. 31,                     | 2002  | 2001       | 2000  |
|---|-------|------------|-------|
|   |       | ( million) |       |
| Net income under US GAAP                        | 1,277 | 800        | 1,783 |
| Amortization, net of tax                        |       |            |       |
| Goodwill  |       | 178        | 227   |
| Indefinite-lived intangible asset               |       | 6          | 6     |
|   | _____ | _____      | _____ |
| Adjusted net income under U.S. GAAP             | 1,277 | 984        | 2,016 |
|   | _____ | _____      | _____ |
| Adjusted basic and diluted net income per share | 1.75  | 1.35       | 2.76  |
|   | _____ | _____      | _____ |

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****Discontinued operations**

Under IAS, the Group has classified Haarmann & Reimer, which was disposed in 2002, and EC Erdölchemie, which was disposed in 2001, as discontinuing operations as they met the requirements under IAS, which requires an analysis of a disposition at the level of a major line of business or geographical area of operations. Under the new requirements of SFAS 144 Accounting for the Impairment or Disposal of Long-lived Assets, the threshold, a component of an entity, for reporting discontinued operations is lower than under IAS. Accordingly, dispositions or assets and disposal groups held for sale qualifying as a component of an entity, which is defined as comprising operations and cash flows that can be clearly distinguished, operationally and for financial reporting purposes from the rest of the entity, shall be reported as discontinued operations. Therefore, under U.S. GAAP, the divestitures of Bayer Wohnungen GmbH, included in the Reconciliation column in segment reporting; the French and Spanish generic pharmaceuticals operations, included in the Pharmaceutical and Biological Products segment; and the sale of Bayer's global household insecticides business (Flora), included in the Consumer Care and Diagnostics segment, qualify for reporting as discontinued operations. The Fibers business group was reclassified as part of continuing operations in all periods presented due to the Group's decision in May 2002 to retain it as a part of Polymers.

Sales from discontinued operations are 1,027 million, 1,574 million and 1,965, in 2002, 2001 and 2000, respectively. The operating result of discontinued operations, including gains on disposals of 1,732 million, 316 million and nil in 2002, 2001 and 2000, respectively, is 1,846 million, 522 million and 261 million in 2002, 2001 and 2000, respectively.

The following U.S. GAAP income statement information includes these businesses as discontinued operations:

|   | <u>2002</u>  | <u>2002</u>  | <u>2001</u> | <u>2000</u>  |
|---|--------------|--------------|-------------|--------------|
|   | (\$ million) | ( million)   | ( million)  | ( million)   |
| <b>Income from continuing operations</b>    | (312)        | (297)        | 404         | 1,596        |
| Discontinued operations net of tax          | 1,651        | 1,574        | 396         | 187          |
| <b>Net income reported under U.S. GAAP</b>  | <u>1,339</u> | <u>1,277</u> | <u>800</u>  | <u>1,783</u> |
|   | <b>2002</b>  | <b>2002</b>  | <b>2000</b> | <b>2001</b>  |
| <b>Earnings per share</b>                   | (\$ million) | ( million)   | ( million)  | ( million)   |
| Basic and diluted:                          |              |              |             |              |
| Income from continuing operations           | (0.43)       | (0.41)       | 0.56        | 2.19         |
| Income from discontinued operations         | 2.26         | 2.16         | 0.54        | 0.25         |
| <b>Basic and diluted earnings per share</b> | <u>1.83</u>  | <u>1.75</u>  | <u>1.10</u> | <u>2.44</u>  |

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****Financial assets and liabilities**

The components of marketable securities under U.S. GAAP at December 31, 2002 and 2001 are the following:

|                                | Cost       | Gross<br>unrealized<br>gains | Gross<br>unrealized<br>losses | Carrying value<br>and estimated<br>fair value |
|--------------------------------|------------|------------------------------|-------------------------------|---|
|                                | ( million) |                              |                               |   |
| <b>As of December 31, 2002</b> |            |                              |                               |   |
| Available for sale securities: |            |                              |                               |   |
| Equity securities              | 516        | 85                           | (95)                          | 506   |
| Debt securities                | 29         |                              |                               | 29  |
| <b>Total</b>                   | <b>545</b> | <b>85</b>                    | <b>(95)</b>                   | <b>535</b>                                    |
| <b>As of December 31, 2001</b> |            |                              |                               |   |
| Available for sale securities: |            |                              |                               |   |
| Equity securities              | 944        | 625                          | (35)                          | 1,534   |
| Debt securities                | 39         | 20                           | (7)                           | 52  |
| <b>Total</b>                   | <b>983</b> | <b>645</b>                   | <b>(42)</b>                   | <b>1,586</b>                                  |

Prior to the adoption of IAS 39, unrealized holding gains on available for sale securities were not recorded under IAS and gross unrealized holding losses on available for sale securities were 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 in all periods presented.

Proceeds from sales of available for sale securities were 714 million, 195 million, and 296 million in 2002, 2001 and 2000, respectively. Gross realized gains of 261 million, 25 million, and 73 million were included in those sales in 2002, 2001 and 2000, respectively. There were no gross realized losses in 2002, 2001 or 2000. The gain or loss on these sales was determined using the weighted average cost method.

The maturities of debt securities at December 31, 2002 are as follows:

|                                  | Available for<br>Sale |
|----------------------------------|-----------------------|
|                                  | ( million)            |
| Within one year                  | 29                    |
| Over one year through five years | —                     |
| <b>Total</b>                     | <b>29</b>             |

**Derivative financial instruments**

The estimated fair values of derivative financial instruments are provided in Note [38] to the Consolidated Financial Statements of the Bayer Group. The use of derivatives is confined to the hedging of the operating business and of the related investments and financing transactions.



***Fair Value Hedges***

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. As of December 31, 2002, Bayer

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**Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

recognized no ineffectiveness for any of the fair-value hedges. All components of the Groups interest rate swap and cross average interest rate swap gains or losses were included in the assessment of hedge effectiveness.

***Cash Flow Hedges***

While each risk management program has a different time horizon, no program currently extends beyond the next twelve months. 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 twelve months ended December 31, 2002, and no amounts were reclassified to earnings for forecasted transactions that did not occur. The estimated net amount of the existing gains or losses on the reporting date that are expected to be reclassified as earnings within the next twelve months amount to 13 million.

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.

***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 before 2001, as described above. Non-derivative financial assets consist 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.

Information concerning the fair values of long and short-term financial debt is provided in Note [38] to the Consolidated Financial Statements of the Bayer Group.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****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 and 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:

|  | <b>2002</b>       | <b>2001</b>       | <b>2000</b>       |
|--|-------------------|-------------------|-------------------|
|  | <b>( million)</b> | <b>( million)</b> | <b>( million)</b> |
| Net income under U.S. GAAP   | 1,277             | 800               | 1,783             |
| Other comprehensive income:  |                   |                   |                   |
| Unrealized market value adjustment on available-for-sale securities (net of taxes of 51 million, 28 million and 3 million, respectively) | (725)             | (884)             | 799               |
| Unrealized market value adjustment on cash flow hedges (net of taxes of 2 million, 1 million, and nil, respectively)                     | (13)              | 1                 |                   |
| Reclassification adjustment:   |                   |                   |                   |
| Net realized gains (losses) on sales of securities (net of taxes of 1 million, nil and 4 million, respectively)                          | 154               | 25                | (12)              |
| Net realized gains (losses) on sales of cash flow hedges (net of taxes of 4 million, 27 million and nil, respectively)                   | (9)               | 68                |                   |
| Additional minimum pension liability (net of taxes of 26 million, 80 million and 1 million, respectively)                                | (39)              | (120)             | 2                 |
| Foreign currency translation adjustment  | (1,444)           | 322               | 288               |
| <b>Comprehensive income under U.S. GAAP</b>  | <b>(799)</b>      | <b>212</b>        | <b>2,860</b>      |

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)****Employee Benefit Plans**

Presented below are the disclosures required by SFAS No. 132 Employees Disclosures about Pensions and Other Post-Retirement Benefits ), which provide a roll forward of benefit obligations, plan assets and funded status of the plan:

|   | Pension Benefits |                | Other Post-<br>Employment<br>Benefits |              |
|---|------------------|----------------|---------------------------------------|--------------|
|   | 2002             | 2001           | 2002                                  | 2001         |
|   | ( million)       |                |                                       |              |
| <b>Benefit obligation</b>                       |                  |                |                                       |              |
| At beginning of year                            | 11,303           | 10,684         | 957                                   | 949          |
| Service cost                                    | 302              | 265            | 87                                    | 23           |
| Interest cost                                   | 727              | 669            | 57                                    | 58           |
| Employee contributions                          | 46               |                |                                       |              |
| Plan amendments                                 | 7                |                |                                       | (94)         |
| Plan settlements                                | (33)             | (1)            |                                       |              |
| Actuarial (gain) loss                           | (37)             | 305            | 46                                    | 84           |
| Foreign currency translation                    | (531)            | 66             | (149)                                 | 25           |
| Benefit payments                                | (586)            | (503)          | (103)                                 | (90)         |
| Acquisitions/ Mergers                           | 1,290            | 2              | 69                                    | 2            |
| Divestitures                                    | (88)             | (184)          | (4)                                   |              |
| Curtailments                                    | 14               |                | 1                                     |              |
| <b>Benefit obligation at end of year</b>        | <b>12,414</b>    | <b>11,303</b>  | <b>961</b>                            | <b>957</b>   |
| <b>Plan assets at fair value</b>                |                  |                |                                       |              |
| At beginning of year                            | 8,126            | 8,790          | 337                                   | 389          |
| Actual return on plan assets                    | (668)            | (563)          | (18)                                  | (43)         |
| Acquisitions/ Mergers                           | 790              | 2              |                                       |              |
| Divestitures                                    | (67)             | (130)          |                                       |              |
| Plan settlements                                | (8)              |                |                                       |              |
| Foreign currency translation                    | (478)            | 178            | (51)                                  | 9            |
| Employer contribution                           | 351              | 313            | 92                                    | 72           |
| Employee contributions                          | 46               | 39             |                                       |              |
| Benefit payments                                | (586)            | (503)          | (103)                                 | (90)         |
| <b>Plan assets at fair value at end of year</b> | <b>7,506</b>     | <b>8,126</b>   | <b>257</b>                            | <b>337</b>   |
| <b>Funded status</b>                            | <b>(4,908)</b>   | <b>(3,177)</b> | <b>(704)</b>                          | <b>(620)</b> |
| Unrecognized transition obligation              | 25               | 50             |                                       |              |
| Unrecognized prior service cost                 | 7                | 16             | (68)                                  | (85)         |
| Unrecognized actuarial losses                   | 2,345            | 1,350          | 143                                   | 70           |
| Limitation                                      |                  |                |                                       |              |
| <b>Additional minimum liability</b>             | <b>(480)</b>     | <b>(415)</b>   |                                       |              |
| <b>Prepaid (accrued) benefit cost</b>           | <b>(3,011)</b>   | <b>(2,176)</b> | <b>(629)</b>                          | <b>(635)</b> |
| Amounts recognized in the balance sheet         |                  |                |                                       |              |
| Prepaid benefit assets                          | 1,742            | 1,792          |                                       |              |
| Accrued benefit liability                       | (4,753)          | (3,968)        | (629)                                 | (635)        |

|                              |                |                |              |              |
|------------------------------|----------------|----------------|--------------|--------------|
| <b>Net amount recognized</b> | <u>(3,011)</u> | <u>(2,176)</u> | <u>(629)</u> | <u>(635)</u> |
|------------------------------|----------------|----------------|--------------|--------------|

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

|   | Pension Benefits |            | Other Post-Employment Benefits |           |
|---|------------------|------------|--------------------------------|-----------|
|   | 2002             | 2001       | 2002                           | 2001      |
|   | ( million)       |            |                                |           |
| <b>Benefit cost</b>                             |                  |            |                                |           |
| Service cost                                    | 302              | 265        | 87                             | 23        |
| Flat-rate tax on employer contributions         |                  | 7          |                                |           |
| Interest cost                                   | 727              | 669        | 57                             | 58        |
| Expected return on plan assets                  | (607)            | (608)      | (26)                           | (31)      |
| Employee contributions                          |                  | (39)       |                                |           |
| Amortisation of unrecognized prior service cost | 12               | 10         |                                |           |
| Amortisation of transition obligation           | 24               | (22)       |                                |           |
| Amortisation of actuarial (gains) losses        | 67               | 12         | (4)                            | 13        |
| Gains (losses) from settlements                 | 20               |            |                                |           |
| <b>Net periodic benefit cost</b>                | <b>545</b>       | <b>294</b> | <b>114</b>                     | <b>63</b> |

| Other Post-Retirement Benefit Plans weighted-average assumptions as of December 31, | 2002  | 2001  |
|---|-------|-------|
| Discount rate   | 6.80% | 7.00% |
| Rate of compensation increase   | N/A   | N/A   |
| Expected return on plan assets  | 7.00% | 8.50% |

The assumed health care cost trend rate at December 31, 2002 was 7.0% gradually declining to 5.0% by the year 2004. A one-percentage-point change in the assumed health care cost trend rates compared to those used for 2002 would have the following effects:

|  | 1% point increase | 1% point decrease |
|--|-------------------|-------------------|
|  | ( million)        |                   |
| Effects on total of service and interest cost components | 13                | (11)              |
| Effect on post retirement benefit obligations            | 89                | (78)              |

**Stock-Based Compensation**

The Group applies Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees ( APB 25 ) and related interpretations in accounting for its stock compensation program. SFAS 123 Accounting for Stock-Based Compensation would result in the same accounting treatment for the Group's stock incentive plans as was applied under APB 25. Hence the additional pro forma disclosures required under SFAS 123 do not apply.

**Proportional Consolidation**

The Group accounts for its investment in 11 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 SEC permits the omission of such differences in classification and display in the reconciliation to U.S. GAAP provided certain criteria have been met.



**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

Condensed financial information relating to the Group's pro-rata interest in joint ventures accounted for using the proportionate consolidation method is as follows:

| <b>Balance Sheet Information</b> | <b>Dec. 31, 2002</b> | <b>Dec. 31, 2001</b> |
|----------------------------------|----------------------|----------------------|
|                                  | ( million)           |                      |
| Current assets                   | 114                  | 175                  |
| Noncurrent assets                | 221                  | 236                  |
| Short-term liabilities           | 46                   | 128                  |
| Long-term liabilities            |                      | 38                   |

  

| <b>Statement of Income Information</b> | <b>Dec. 31, 2002</b> | <b>Dec. 31, 2001</b> |
|--|----------------------|----------------------|
|  | ( million)           |                      |
| Net sales                              | 176                  | 492                  |
| Operating result                       | 52                   | 63                   |
| Net income                             | 47                   | 55                   |

  

| <b>Statement of Cash Flow Information</b> | <b>Dec. 31, 2002</b> | <b>Dec. 31, 2001</b> |
|---|----------------------|----------------------|
|   | ( million)           |                      |
| Net cash provided by operating activities | 80                   | 61                   |
| Net cash (used in) investing activities   | (7)                  | (16)                 |
| Net cash (used in) financing activities   | (70)                 | (44)                 |

**Self-Insurance**

Various Group companies are self-insured to different degrees. The maximum amount of any Group company's self-insurance is for general liability up to approximately 10 million per occurrence, and product liability up to 14 million per occurrence. For claims against our U.S. subsidiary, the product liability self-insurance is limited to a maximum of 22 million per year.

**Legal Proceedings**

As discussed in Note [29], 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.



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The following describes the most significant proceedings in which Bayer AG or its subsidiaries were involved as of December 31, 2002.

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**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)***Patent validity challenges and infringement proceedings; patent-related antitrust actions*

In the United States, Bayer AG and its U.S. subsidiary Bayer Corporation are and have been 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 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 re-examination of our patent. The Patent and Trademark Office reissued the patent in February 1999. See below, *Antitrust actions*.

After the settlement with Barr, a series of generics manufacturers filed ANDA (IV)s seeking regulatory approval of generic versions of ciprofloxacin. We filed patent infringement suits against these manufacturers, all of whom challenged the validity of our patents covering the sales of Cipro. During 2002 all patent infringement actions then still pending were concluded by final judgments in our favor.

*Antitrust actions.* Since July 2000 Bayer Corporation has been named as a defendant in 39 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 a defendant in 20 of those cases, including the individual lawsuit and the consumer protection group lawsuit; however, to date it has only 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 a defendant in one or more of these lawsuits. The plaintiffs in these suits allege that they are

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**Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

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 settlement violates various federal antitrust and state business, antitrust, unfair trade practices, and consumer protection statutes, and seek treble damages and injunctive relief.

None of the relevant courts in any of the putative class action lawsuits have certified a class. The Judicial Panel for Multidistrict Litigation (or MDL Panel) transferred 35 of these cases to the U.S. District Court for the Eastern District of New York for coordinated pre-trial proceedings. The district court later remanded nine of those cases to various state courts.

On January 25, 2002, Bayer filed a motion to dismiss all of the cases pending in the District Court for the Eastern District of New York, and the plaintiffs filed motions for partial summary judgment that the conduct alleged in the complaints constitutes an agreement that is unlawful on its face.

Nine cases have been consolidated and are currently pending in a California state court. The California state court denied Bayer's demurrer, and Bayer answered plaintiffs' claims on December 23, 2002. Bayer is also involved in state court proceedings in Florida, New York, Kansas, Tennessee and Wisconsin. Bayer has answered plaintiffs' claims in the Florida case and filed motions to dismiss in the other four jurisdictions.

The Barr settlement is also the subject of an ongoing antitrust investigation by the U.S. Federal Trade Commission and a number of state attorneys general.

Because these cases, which may involve joint and several liability among the defendants, 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 materially adverse 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.

Additionally, due to the considerable uncertainty associated with these proceedings, it is currently not possible to accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

*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. We have concluded these cases related to nifedipine with all of the defendants, with the exception of the Biovail and Teva cases described in the following two paragraphs.

Bayer AG and Bayer Corporation filed four ANDA (IV) patent infringement suits against Biovail Laboratories and Biovail Corporation in the U.S. District Court for the District of Puerto Rico. Two of these suits relate to Biovail ANDAs directed to 30 mg and 60 mg dosage strengths of nifedipine extended release tablets assertedly bioequivalent to Pfizer's 30 mg and 60 mg Procardia®XL. The other two ANDA lawsuits relate to Biovail's 30 mg and 60 mg dosage strength tablets assertedly bioequivalent to Bayer's 30 and 60 mg Adalat®CC drug products.

In addition, Bayer and Pfizer filed a suit against Biovail and Teva Pharmaceuticals U.S.A., Inc. asserting that Teva's commercial sales of Biovail's 60 mg tablet asserted to be bioequivalent to Pfizer's 60 mg Procardia®XL drug product infringed Bayer's related U.S. patent. Bayer also filed suit against Biovail and Teva asserting that Teva's commercial sales of Biovail's 60 mg tablet asserted to be bioequivalent to Bayer's 60 mg Adalat®CC drug

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

product infringing Bayer's patent. All of these lawsuits are currently proceeding on the limited question of claim construction.

*Antitrust actions.* Biovail filed an antitrust lawsuit against Bayer AG, Bayer Corporation and Pfizer in the U.S. District Court for the District of Western Pennsylvania in April 1998. Biovail was seeking a declaratory judgment that Bayer's nifedipine patents are invalid. Biovail was also seeking damages under federal and state antitrust statutes alleging, among other things, that Bayer illegally asserted its patent rights. The district court stayed this litigation pending resolution of the nifedipine-related patent infringement actions against Biovail.

*Vardenafil-related actions*

In October 2002 Pfizer, Inc. filed a declaratory judgment action against Bayer AG and Bayer Corporation in the U.S. District Court for the District of Delaware claiming that the expected sale of Levitra®, Bayer's product for the treatment of erectile dysfunction, will infringe upon Pfizer's U.S. patent relating to products for the treatment of erectile dysfunction. Levitra® has not yet been approved in the United States by the Food and Drug Administration. The action seeks a permanent injunction to prevent Bayer AG and Bayer Corporation from selling Levitra® in the United States. If Levitra® is approved and launched in the United States, Pfizer may make a motion for a preliminary injunction to prevent sales of Levitra®. Bayer AG and Bayer Corporation are coordinating their defense with SmithKline Beecham Corporation (a GlaxoSmithKline Company), Bayer's co-promotion partner in the United States and other countries and a co-defendant in this suit. In some other countries the local Pfizer affiliate has initiated similar proceedings to prevent the marketing of Levitra. We believe that we have meritorious defenses in these actions and intend to defend them 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. Seven 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. 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.

*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. In the United States, we co-promoted this product with SmithKline Beecham Corporation pursuant to an agreement dated July 21, 1997. As of December 31, 2002, approximately 7,200 lawsuits were pending in both federal and state courts, including 158 putative class actions. The actions in the United States have been based 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. District Court for the District of Minnesota for coordinated

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

discovery and other pre-trial proceedings. In addition, several actions have been initiated against other companies of the Bayer Group in other countries, including class actions in Canada. We expect additional lawsuits to be filed in the United States and elsewhere.

In the event that plaintiffs substantially prevail, despite existing defense arguments, it is possible that Bayer could incur charges in excess of our insurance coverage. Due to the considerable uncertainty associated with these proceedings, it is currently not possible to more accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on financial results. Without acknowledging any liability, we have settled 650 cases as of December 31, 2002, resulting in settlement payments of approximately \$100 million. Bayer will continue to offer fair compensation to people who experienced serious side effects while taking cerivastatin on a voluntary basis and without concession of liability. In cases where an examination of the facts indicates that Baycol played no part in the patient's medical situation, or where a settlement is not achieved, Bayer will continue to defend itself vigorously. We believe we have meritorious defenses in these actions. In some countries, criminal proceedings have been initiated by the relevant authorities. SmithKline Beecham Corporation and Bayer Corporation have signed an allocation agreement under which SmithKline Beecham has agreed to pay 5 percent of all settlements and compensatory damages judgments arising out of actions based on the sale or distribution of cerivastatin in the United States, with each party responsible for paying its own attorneys' fees.

*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. As of December 31, 2002, approximately 1,025 lawsuits have been initiated in the United States against Bayer Corporation, including 14 purported class actions of which 11 have been denied. Three are pending and appeals are possible. Bayer AG has also been recently named as a defendant. The MDL Panel has assigned management of the federal court cases to the U.S. District Court for the Western District of Washington. The claims primarily relate to compensation for alleged damage to health, entitlement to subsequent monitoring and reimbursement of the purchase price. Claims for punitive damages have also been filed. It is probable that additional actions will be initiated in the U.S. 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. We may, on a case-by-case basis, settle cases for reasonable amounts when, in our judgment, settlement is economically feasible given the risks and costs inherent in the litigation. In the event that plaintiffs in these PPA actions substantially prevail, Bayer could be subject to monetary judgments in excess of our insurance coverage, which could materially affect our business, results of operations, cash flows and financial position. Since the amount of damages to which we could be subject if plaintiffs do prevail is highly uncertain, we have not made any provisions for amounts that may exceed our insurance coverage. We will continue to monitor the progress of these cases and may, in appropriate circumstances, consider establishing such provisions, which may have a material negative effect on our financial results.

*Medicaid Rebate Program allegations*

Our U.S. subsidiary Bayer Corporation was under investigation by the U.S. Attorney's Office for the District of Massachusetts. The investigation, which was assisted by the Department of Health & Human Services, focused primarily on allegations that Bayer Corporation improperly underpaid rebates under the Medicaid Rebate Program during a period from 1995 to 2000. Under the settlement agreement, we will make payments of approximately \$260 million to cover the claims. A reserve for these payments was set up in 2002. In addition, Bayer Corporation pleaded guilty to a single felony count for failing to list private label Cipro® with the U.S. Food and Drug Administration during the second half of 1995.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)***Average wholesale price manipulation proceedings*

Fourteen pending lawsuits allege that a number of pharmaceutical companies, including Bayer Corporation, manipulated the average wholesale price of their products. The suits allege that this manipulation resulted in overcharges to Medicare beneficiaries, Medicaid recipients, state governmental health programs, and private health plans. These suits generally seek damages, treble damages, disgorgement of profits, restitution and attorney's fees. All of the state court actions have been removed to federal court, subject to potential remand. Nine cases filed in federal court were transferred to the U.S. District Court for the District of Massachusetts for coordinated pretrial proceedings. All but two actions are private class actions alleging injury to patients or payors. Two cases are brought by governmental entities, one by the State of Nevada and one by Suffolk County, New York, claiming recovery of their portion of Medicaid cost sharing. Due to the considerable uncertainty associated with these proceedings, it is currently not possible to more accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on financial results.

*Rubber-related actions*

Beginning in late 2002, Bayer AG and certain of its U.S. and Canadian subsidiaries became the subjects of criminal and civil investigations being conducted by the Antitrust Division of the U.S. Department of Justice ( DOJ ), the Directorate General for Competition of the European Commission ( EC ), and the Canadian Competition Bureau ( CCB ). The investigations were based on allegations of cartel-related activities involving certain of Bayer's rubber-related lines of business in violation of antitrust or competition laws.

The DOJ undertook criminal grand jury investigations of alleged cartel activities involving Bayer's rubber chemicals and ethylene propylene diene monomer ( EPDM ) lines of business. The EC undertook civil investigations of similar allegations involving Bayer's rubber chemicals and EPDM lines of business. The CCB undertook a criminal investigation of alleged cartel activities involving Bayer's rubber chemicals line of business. Each of these investigations remains ongoing.

Bayer AG and certain of its direct and indirect subsidiaries have been named as defendants in twenty putative class action lawsuits that were filed in state and federal courts in the United States based on allegations related to these governmental investigations. Bayer became aware that twenty cases had been filed in the state courts of eighteen states on behalf of putative classes of plaintiffs who allegedly purchased rubber chemicals indirectly from one or more of the named defendants by purchasing a product containing or manufactured using such chemicals. Crompton Corporation, Uniroyal Chemical Company, Inc., Uniroyal Chemical Company Ltd., Flexsys NV, and Flexsys America LP were also named as defendants in one or more of these lawsuits. The plaintiffs seek to recover from Bayer and each of the other defendants damages equal to three times any proven negative effect on commerce caused by their alleged conspiracy to fix prices for rubber chemicals, as well as injunctive relief against each defendant to prevent its future participation in such a conspiracy.

All of these lawsuits were in preliminary stages at the end of 2002. Bayer Corporation and Rhein Chemie Corporation were served in fourteen of the twenty cases that had been filed, but neither company filed responsive pleadings before the end of 2002. Bayer AG and Rhein Chemie Rheinau GmbH were not served in any of these cases in 2002.

Because these cases, which may involve joint and several liability among the defendants, 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 materially adverse to our results of operations and cash flows in one or more periods.

Bayer is also aware that a number of private civil lawsuits have been filed in state and federal courts in the United States asserting claims based on alleged cartel-related activities involving EPDM. Bayer AG has been named as a defendant in two cases, and Bayer Corporation has been named and served in one case, all of which were filed in the U.S. District Court for the Northern District of California on behalf of a putative class of

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

plaintiffs who allegedly purchased EPDM in the United States directly from one or more of the named defendants. Crompton Corporation, DuPont Dow Elastomers LLC, DSM N.V., and Exxon Mobil Chemical Co. are also named in one or more of these complaints. The plaintiffs are seeking damages from Bayer and each of the other defendants equal to three times any proven negative effect on commerce caused by their alleged conspiracy to fix prices for EPDM sold in the United States, as well as injunctive relief against each defendant to prevent its future participation in such a conspiracy. Neither Bayer AG nor any of its direct or indirect subsidiaries with the exception of Bayer Corporation and Rhein Chemie Corporation has been served with complaints in any of these actions.

We are aware that our competitors are subject to investigations by governmental authorities based on their alleged participation in cartel-related activities involving additional rubber-related products in violation of relevant antitrust or competition laws. It is possible that additional governmental investigations may be commenced in the United States or other jurisdictions and that private civil lawsuits may arise out of these investigations, which may involve both Bayer and our competitors. Bayer also became aware that our competitors were subject to investigations by governmental authorities based on their alleged participation in cartel-related activities involving additional rubber-related products in violation of antitrust or competition law. It is possible that additional governmental investigations may be commenced in the United States or other jurisdictions and that private civil lawsuits may arise out of these investigations. If the latter occurs, Bayer could be named in those lawsuits.

Because these cases, which may involve joint and several liability among the defendants, 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 materially adverse to our results of operations and cash flows in one or more periods.

Additionally, due to the considerable uncertainty associated with these proceedings, it is currently not possible to accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

*Asbestos litigation*

We are currently involved in asbestos litigation in the United States, primarily as a premises defendant, predominantly in the states in which Bayer has industrial sites. The overwhelming majority of Bayer's cases are filed in West Virginia and Texas and involve allegations of exposure at Bayer's sites. Texas law and West Virginia law permit consolidated asbestos actions in which multiple plaintiffs can sue multiple defendants for asbestos-related conditions without specifying which plaintiff has a claim against which defendant. While Bayer may be named as a defendant in the case, each plaintiff does not have to assert a claim against Bayer. As of December 31, 2002, 177 cases had been filed against us. In West Virginia, Bayer is a defendant in approximately 26 cases involving 2,424 plaintiffs. Bayer has been identified by less than 10 percent of the named plaintiffs in these actions, i.e. of the 2,424 plaintiffs, approximately 240 have claimed that they worked at a Bayer site. In addition, after past settlements in principle are finalized, we will be involved in only seven West Virginia cases involving 353 plaintiffs, as well as one medical monitoring class action that is currently inactive. Bayer is involved in 56 cases in Texas involving 6,329 plaintiffs, and, as in West Virginia, is typically identified by a small percentage of plaintiffs (less than 5 percent). Bayer also has cases pending in Indiana and California.

The allegations as to Bayer and numerous other premises defendants are that Bayer employed many contractors on our industrial sites, yet failed to warn them or protect them from the known hazards of asbestos exposures throughout the 1960's, 1970's and 1980's. Since premises owners now form a new group of targeted corporate defendants in these litigations, these types of actions may become material to our business in the future.

One of our U.S. subsidiaries, Bayer CropScience, Inc., is the legal successor to entities that sold asbestos-containing products from the 1940's until 1976 and is named as a defendant in asbestos-related litigation. Bayer CropScience is and has been fully indemnified for its costs and exposure in relation to this litigation by Union Carbide. Union Carbide continues to accept Bayer CropScience's tender of these cases, and it defends and settles

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**Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

them in Bayer CropScience's name, in its own name and in the name of the several predecessor companies to Bayer CropScience.

We believe that we have meritorious defenses in these actions and are defending them vigorously. Without acknowledging any liability, we have settled a number of these cases in the past. We may, on a case-by-case basis, settle additional cases for reasonable amounts when, in our judgment, settlement is economically feasible given the risks and costs inherent in the litigation. We have made what we believe to be appropriate provisions should these suits result in judgments in favor of the plaintiffs.

For a discussion of the developments in certain of the actions discussed in this item since December 31, 2002, see Note [45], *Subsequent Events* below.

***Effect of New Accounting Pronouncements***

**U.S. GAAP**

In June 2001 the Financial Accounting Standards Board (FASB) approved Statement of Financial Accounting Standards (SFAS) 143, *Accounting for Obligations Associated with the Retirement of Long-Lived Assets* (SFAS 143), which requires that the fair values of an obligation associated with the retirement of long-lived assets be recognized in the period in which such obligation is incurred if a reasonable estimate of fair value can be made. When the liability is recorded, the Group must capitalize the costs of the liability by increasing the carrying amount of the long-lived asset. Over the estimated life of the asset, the liability is accreted to its present value and the related capitalized charge is depreciated over the useful life of an asset. This is required to be implemented by the Group with the effect from January 1, 2003. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

In April 2002 SFAS 145, *Rescission of FASB Statements no. 4, 44 and 64, Amendment of FASB Statement no. 13 and Technical Corrections* was issued. The statement updates, clarifies and simplifies existing accounting standards related to the presentation of gains and losses from certain extinguishments of debt, the accounting for certain intangible assets and the accounting for certain sale-leaseback transactions. Significant provisions of this statement applicable to Bayer are effective for our 2003 fiscal year. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

SFAS 146, *Accounting for Costs Associated with Exit or Disposal Activities* (SFAS 146), was issued in June 2002. SFAS 146, which rescinds Emerging Issues Task Force (EITF) Issue 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)*, requires a liability for costs associated with exit or disposal activities to be recognized and measured initially at fair value only when they are incurred rather than at the date of a commitment to an exit or disposal plan. SFAS 146 is to be applied prospectively to exit or disposal activities initiated after December 31, 2002. The Group will adopt this standard effective January 1, 2003. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

In November 2002 the FASB published FASB Interpretation no. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others* (FIN 45). FIN 45 expands on the accounting guidance of other SFASs by extending the disclosures to be made by a guarantor in its financial statements about its obligations under certain guarantees, and it requires the guarantor to recognize a liability for the fair value of an obligation assumed under a guarantee. The disclosure requirements are effective for financial years ending after December 15, 2002, and require disclosure of the nature of the guarantee, the maximum potential amount of future payments that the guarantor could be required to make under the guarantee, and the current amount of the liability, if any, for the guarantor's obligations under the guarantee. FIN 45's provisions for initial recognition and measurement should be applied prospectively to guarantees issued or modified after December 31, 2002. The Group will apply the standard on January 1, 2003. We do not believe



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**Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

In January 2003 the FASB published FASB Interpretation no. 46, Consolidation of Variable Interest Entities ( FIN 46 ). FIN 46 addresses the consolidation of entities for which control is achieved through means other than through voting rights (such entities are designated variable interest entities or VIE ) by clarifying the application of ARB No. 51, Consolidated Financial Statements to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The primary objective of this interpretation is to provide guidance on how to identify a VIE and to determine when a VIE's assets, liabilities, noncontrolling interests and result of operations need to be included in a company's consolidated financial statements. The measurement principles will apply to the Group's 2003 financial statements, while the disclosure principles are effective immediately. While we are currently in the process of assessing the impact of the adoption of FIN 46, we do not believe it will have a material impact on our financial position, results of operations or cash flows.

In May 2003 the FASB published SFAS 150, Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity ( SFAS 150 ). SFAS 150 establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. This statement is effective for our 2003 fiscal year reporting. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

In May 2003 the FASB EITF published Issue 00-21, Revenue Arrangements with Multiple Deliverables ( EITF 00-21 ). EITF 00-21 addresses certain aspects of the accounting by a vendor for arrangements under which it will perform multiple revenue generating activities. The Issue is effective for revenue arrangements entered into for fiscal periods beginning after June 15, 2002. We do not believe the adoption of EITF 00-21 will have a material impact on our financial position, results of operations or cash flows.

In April 2003 the FASB issued SFAS No 149 Amendment of Statement 133 on Derivative Instruments and Hedging Activities . This Statement amends and clarifies financial accounting and reporting for derivative instruments, including certain derivative instruments embedded in other contracts (collectively referred to as derivatives) and for hedging activities under SFAS no. 133, Accounting for Derivative Instruments and Hedging Activities . The Group is currently evaluating the impact of this change.

**[45] Subsequent Events (unaudited)**

On January 31, 2003 the sale of the Organic Pigments Division of Bayer Corporation to Sun Chemical Group was completed.

Bayer CropScience AG has completed the sale of several insecticides and fungicides to BASF AG. The total package is valued at 1,185 million. With the completion of this transaction, Bayer has fulfilled the most important condition imposed by the antitrust authorities for the Aventis CropScience acquisition.

On May 9, 2003 Bayer and Degussa sold Polymer Latex GmbH & Co. KG of Marl, Germany, for 235 million to financial investor Soros Private Equity Partners after approval had been received from the relevant antitrust authorities. Bayer and Degussa each owned 50 percent of PolymerLatex, a joint venture established in 1996 that has become a leading supplier of latex products for paper, carpets/ molded foam and speciality applications.

Bayer will use the proceeds of these divestments to further reduce net debt.

***Legal Proceedings***

For a discussion of the developments prior to December 31, 2002 in the actions discussed below, see Item 8, *Financial Information* *Legal Proceedings* and Note [44] U.S. GAAP Information *Legal Proceedings*.

**Table of Contents****Notes to the Consolidated Financial Statements of the Bayer Group (Continued)***Ciprofloxacin-related actions*

*Patent-related actions.* Since concluding the Barr settlement agreement, we have opted to make payments. In addition, as of June 9, 2003, Barr began selling ciprofloxacin hydrochloride tablets in the United States using licensed product purchased from Bayer. These purchases are being made pursuant to a separate obligation of Bayer under the settlement agreement to supply such product to Barr during the six month period immediately proceeding the December 2003 expiration of the patent protecting the sale of Cipro© in the United States. Bayer further intends to seek pediatric exclusivity for Cipro, which, if granted by the FDA, could delay the introduction of generic versions of ciprofloxacin for six months beyond expiration of the patent. If Bayer is successful, we expect that the agreement term will be extended to include the additional six-month pediatric exclusivity period.

*Antitrust actions.* On January 25, 2002, Bayer filed a motion to dismiss all of the cases pending in the District Court for the Eastern District of New York, and the plaintiffs filed motions for partial summary judgment that the conduct alleged in the complaints constitutes an agreement that is unlawful on its face. On May 20, 2003, the district court denied the plaintiffs' motions for partial summary judgment, concluding that the alleged conduct was not per se anticompetitive under U.S. antitrust laws. The district court also denied Bayer's motion to dismiss, except as to the consumer protection group lawsuit, which the court held to be time-barred under the applicable statute of limitations.

The Barr settlement is also the subject of an ongoing antitrust investigation by the U.S. Federal Trade Commission and a number of state attorneys general.

*Aventis Behring action*

Nattermann & Cie GmbH and Aventis Behring LLC filed a suit on April 11, 2003 against Bayer Corporation and Bayer Healthcare LLC in the U.S. District Court for the Eastern District of Pennsylvania alleging that Bayer's Kogenate FS composition containing recombinant Factor VIII, which is used to treat hemophilia, infringes upon the U.S. patent owned by either Nattermann & Cie or Aventis Behring. Bayer counterclaimed, seeking *inter alia* a declaration of patent invalidity and non-infringement, and asserting that Bayer's use of the patented process is pursuant to an implied license. The proceedings are at an early stage. We believe that we have meritorious defenses in these actions and intend to defend them vigorously.

*Product liability proceedings*

*HIV-related actions.* In June 2003 a U.S. law firm filed a putative class action against Bayer Corporation and other manufacturers on behalf of non-U.S. residents claiming compensation for HIV/HCV infections allegedly acquired through blood plasma products manufactured in the U.S. This case is at an early stage. Although we have not yet responded to the complaint in this action, we believe that we have meritorious defenses to this action and intend to defend it vigorously.

*Cerivastatin-related actions.* As of June 26, 2003, approximately 9,400 lawsuits are pending in both federal and state courts, including 158 putative class actions. The actions in the United States have been based 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. District Court for the District of Minnesota for coordinated discovery and other pre-trial proceedings. A decision by the court as to whether class certification will be granted for personal injury, medical monitoring and economic refund classes is currently pending. In addition, several actions have been initiated against other companies of the Bayer Group in other countries, including class actions in Canada. We expect additional lawsuits to be filed in the United States and elsewhere. On March 18, 2003, a jury in an action brought against us in state court in Corpus Christi, Texas delivered a verdict in our favor. On April 3, 2003, a jury in an action brought against us in a state court in Hinds County, Mississippi also delivered a verdict in our favor. A motion for certification of nationwide personal injury, medical monitoring and economic refund classes is awaiting decision by this court. On June 16, 2002, the

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**Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

Oklahoma District Court of Pottawatomie County certified a class of all Oklahoma residents who took cerivastatin and sustained muscular/skeletal injuries as a result. Bayer appealed this ruling to the Oklahoma Court of Appeals, which affirmed the lower court's class certification ruling on June 20, 2003. Bayer has meritorious defenses against class certification and intends to seek further appellate review of this ruling. The certification of a class, if such a decision is upheld, is unrelated to a determination of the Company's liability.

Without acknowledging any liability, we have settled over 1,000 cases as of June 26, 2003, resulting in settlement payments of approximately \$343 million. Bayer will continue to offer fair compensation to people who experienced serious side effects while taking cerivastatin on a voluntary basis and without concession of liability.

*Phenylpropanolamine (PPA) actions.* As of May 30, 2003, approximately 1,100 lawsuits have been initiated in the United States against Bayer Corporation, including 14 purported class actions of which 11 have been denied. Three are pending and appeals are possible. Bayer AG has also been recently named as a defendant.

*Average wholesale price manipulation proceedings*

On May 13, 2003, the District Court of Massachusetts granted Bayer's motion to dismiss the master consolidated complaint governing some, but not all of the private party class actions pending against Bayer. Plaintiffs are expected to seek leave to file an amended complaint. Still pending before the court are motions to remand to state court the Nevada action and several of the private party class actions that were not included in the master consolidated complaint. The plaintiff in the Suffolk County action has advised Bayer that it intends to file an amended complaint.

*Rubber-related actions*

In early 2003, Bayer AG and certain of its U.S. and Canadian subsidiaries became the subjects of criminal and civil investigations being conducted by the Antitrust Division of the U.S. Department of Justice (DOJ), the Directorate General for Competition of the European Commission (EC), and the Canadian Competition Bureau (CCB). The investigations are based on allegations of cartel-related activities involving certain of Bayer's rubber-related lines of business in violation of antitrust or competition laws.

The DOJ undertook a criminal grand jury investigation, and the EC undertook a civil investigation, of alleged cartel activities involving Bayer's acrylonitrile butadiene rubber (NBR) line of business. The CCB undertook criminal investigations of alleged cartel activities involving Bayer's ethylene propylene diene monomer (EPDM) and NBR lines of business. These investigations follow the DOJ's and the EC's respective criminal and civil investigations of alleged cartel activities involving Bayer's rubber chemicals and EPDM lines of business that were initiated in 2002, as well as the criminal investigation of alleged cartel activities involving Bayer's rubber chemicals line of business that was initiated by the CCB in 2002. Each of those investigations remains ongoing.

Bayer AG and certain of its direct and indirect subsidiaries were named as defendants in a number of putative class action lawsuits that were filed in state and federal courts in the United States based on allegations related to these governmental investigations. In 2002, Bayer became aware that twenty cases had been filed in the state courts of eighteen states on behalf of putative classes of plaintiffs who allegedly purchased rubber chemicals indirectly from one or more of the named defendants by purchasing a product containing or manufactured using such chemicals. Crompton Corporation, Uniroyal Chemical Company, Inc., Uniroyal Chemical Company Ltd., Flexsys NV, and Flexsys America LP were also named as defendants in one or more of these lawsuits. The plaintiffs seek to recover from Bayer and each of the other defendants damages equal to three times any proven negative effect on commerce caused by their alleged conspiracy to fix prices for rubber chemicals, as well as injunctive relief against each defendant to prevent its future participation in such a conspiracy.

Bayer Corporation and Rhein Chemie Corporation were served in the six remaining state court cases in which they had not received service of process in 2002, and they filed responsive pleadings in each of the twenty

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**Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

state court cases. The complaint filed in state court in North Dakota was dismissed as to Rhein Chemie Corporation for lack of jurisdiction, and the plaintiffs voluntarily dismissed without prejudice the complaint filed in Nebraska. Bayer AG and Rhein Chemie Rheinau GmbH were served in three of these state court cases. Bayer AG did not yet file responsive pleadings in any of these three cases, but Rhein Chemie Rheinau GmbH filed responsive pleadings in each of them.

Bayer AG and certain of its direct and indirect subsidiaries were also named as defendants in private civil lawsuits that have been filed in federal courts in the United States on behalf of putative classes of plaintiffs who allegedly purchased rubber chemicals in the United States directly from one or more of the named defendants. Crompton Corporation, Uniroyal Chemical Company, Inc., Uniroyal Chemical Company Ltd., Flexsys NV, Flexsys America LP, Akzo Nobel NV, Akzo Nobel, Inc., and Solutia, Inc. were also named as defendants in the federal lawsuits. The plaintiffs seek to recover from Bayer and each of the other defendants damages equal to three times any proven negative effect on commerce caused by their alleged conspiracy to fix prices for rubber chemicals sold in the United States, as well as injunctive relief against each defendant to prevent its future participation in such a conspiracy.

Bayer Corporation was served in two and Rhein Chemie Corporation was served in one of these federal cases, but neither company filed responsive pleadings yet. Neither Bayer AG nor any other of its direct or indirect subsidiaries except Bayer Corporation and Rhein Chemie Corporation was served in these federal cases.

Bayer also became aware that in 2003 a number of private civil lawsuits were filed in state and federal courts in the United States asserting claims based on alleged cartel-related activities involving EPDM. Bayer AG was named in two cases, and Bayer Corporation was named and served in another case, all of which were filed in the U.S. District Court for the Northern District of California on behalf of a putative class of plaintiffs who allegedly purchased EPDM in the United States directly from one or more of the named defendants. Crompton Corporation, DuPont Dow Elastomers LLC, DSM NV, and Exxon Mobil Chemical Co. were also named in one or more of these complaints. The plaintiffs seek to recover from Bayer and each of the other defendants damages equal to three times any proven negative effect on commerce caused by their alleged conspiracy to fix prices for EPDM sold in the United States, as well as injunctive relief against each defendant to prevent its future participation in such a conspiracy. Neither Bayer AG nor any other of its direct or indirect subsidiaries except Bayer Corporation was served with complaints in any of these actions.

Bayer also became aware that our competitors were subject to investigations by governmental authorities based on their alleged participation in cartel-related activities involving additional rubber-related products in violation of antitrust or competition law. It is possible that additional governmental investigations may be commenced in the United States or other jurisdictions and that private civil lawsuits may arise out of these investigations. If the latter occurs, Bayer could be named in those lawsuits.

Because these cases, which may involve joint and several liability among the defendants, 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 materially adverse to our results of operations and cash flows in one or more periods.

*Securities litigation*

Since March 6, 2003 Bayer AG, along with certain of its current and former officers and members of the Bayer AG Board of Management, has been named as a defendant in seven purported class action lawsuits filed in the U.S. District Court for the Southern District of New York. Each class action alleges violations of the U.S. securities laws and asserts that the defendants made false and misleading statements and omissions with respect to the commercial prospects, safety and efficacy of our cerivastatin anticholesterol products and with respect to the extent of the potential product liability exposure following our voluntary decision to cease marketing and withdraw these products in August 2001. Each case seeks damages on behalf of class members who allegedly purchased Bayer securities at inflated prices. There are differences between the seven complaints, both with respect to the length of the purported class period, with the longest alleging claims on behalf of persons

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**Notes to the Consolidated Financial Statements of the Bayer Group (Continued)**

who purchased securities from June 27, 1997 to February 21, 2003, as well as with respect to the purported class definition, with several seeking certification of a class consisting of persons who purchased American Depository Shares and others seeking certification of a class consisting of persons who purchased Bayer AG's publicly traded securities.

The cases are at an early stage. We expect that all seven cases will be consolidated before a single judge, and that a single consolidated amended class action complaint will be filed. Although Bayer AG has not yet responded to the complaints in these actions, we believe that we have meritorious defenses to these actions and intend to defend them vigorously.

*German shareholder lawsuit*

In June 2003 a shareholder of Bayer AG filed a lawsuit in the regional court of Cologne, Germany (*Landgericht Köln*). This plaintiff is challenging certain resolutions approved by the Shareholders Meeting of April 25, 2003, including the financial statements of Bayer AG (not the consolidated financial statements) and consequently the distribution of profit. In effect, the plaintiff seeks to prevent the implementation of our planned new corporate structure. See Item 4, *Information on the Company's Business*. While this case is pending, the asset transfers within the Bayer Group to our new operating and support subsidiaries cannot be recorded in the commercial register.

We believe that the plaintiff's lawsuit is without merit and intend to defend ourselves vigorously. Furthermore, in cases of this type German law permits the defendant to seek dismissal in an accelerated proceeding (*Eilverfahren*). We intend to make use of this accelerated proceeding.

We do not believe that this lawsuit will affect our day-to-day business. On an operational level, we began to put our new structure into place in July 2002 and expect to continue to be able to do so. If we cannot resolve this matter satisfactorily within a reasonable period of time, however, or if the plaintiff prevails, it could be more difficult for us to implement some elements of our long-term strategic plans.

*Plant Genetic Systems litigation*

Former shareholders of Plant Genetic Systems NV (PGS) have initiated arbitration proceedings in the Netherlands against AgrEvo, now Bayer CropScience GmbH. Claimants seek damages of up to \$400 million based on alleged violations of a confidentiality agreement in connection with the acquisition of PGS by AgrEvo in 1996, which allegedly prevented claimants from obtaining a higher purchase price. Bayer CropScience believes that claimants' allegations are without merit and will continue to contest these allegations vigorously. The stock purchase agreement between Aventis and Bayer for Aventis CropScience provides that, in case of a decision against Bayer CropScience, Bayer CropScience will be fully indemnified by Hoechst AG and/or Aventis Nutrition S.A.

**Total remuneration of the Board of Management and the Supervisory Board, advances and loans**

The remuneration of the Board of Management for 2002 amounted to 5,700,737 (2001: 8,153,562). Emoluments to retired members of the Board of Management and their surviving dependants amounted to 14,383,353 (2001: 8,355,270).

Pension provisions for these individuals amounting to 106,152,766 (2001: 69,341,493) are reflected in the balance sheet of Bayer AG.

The remuneration of the Supervisory Board amounted to 1,293,750 (2001: 1,293,750).

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**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, 2002, nor any repayments of such loans during the year.

Leverkusen, February 26, 2003

Bayer Aktiengesellschaft

The Board of Management

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