

DOW CHEMICAL CO /DE/  
Form 10-K405  
March 20, 2002

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# SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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## FORM 10-K

Annual Report Pursuant to Section 13 or 15(d) of the  
Securities Exchange Act of 1934

FOR THE YEAR ENDED DECEMBER 31, 2001

Commission file number 1-3433

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## THE DOW CHEMICAL COMPANY

(Exact name of registrant as specified in its charter)

**Delaware** (State or other jurisdiction of  
incorporation or organization) **38-1285128** (I.R.S. Employer Identification No.)  
**2030 DOW CENTER, MIDLAND, MICHIGAN 48674**  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: **989-636-1000**

### Securities registered pursuant to Section 12(b) of the Act:

<b>Title of each class</b>	<b>Name of each exchange on which registered</b>
Common Stock, par value \$2.50 per share	Common Stock registered on the New York, Chicago and Pacific Stock Exchanges

Debentures, 6.85%, final maturity 2013 Debentures registered on the New York Stock Exchange

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. /X/

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 /X/ No / /.

The aggregate market value of voting stock held by nonaffiliates as of March 1, 2002 (based upon the closing price of \$32.20 per common share as quoted on the New York Stock Exchange), is approximately \$2.890 billion. For purposes of this computation, it is assumed that the shares of voting stock held by Directors, Officers and the Dow Employees' Pension Plan Trust would be deemed to be stock held by affiliates. Nonaffiliated common stock outstanding at March 1, 2002 numbered 897,777,409 shares. Total common stock outstanding at March 1, 2002 numbered 906,855,766.

Documents Incorporated by Reference

Part III: Proxy Statement for the Annual Meeting of Stockholders to be held on May 9, 2002.

**The Dow Chemical Company**  
**ANNUAL REPORT ON FORM 10-K**  
**For the Year Ended December 31, 2001**

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**PART I**

**ITEM 1. BUSINESS**

**THE COMPANY**

The Dow Chemical Company was incorporated in 1947 under Delaware law and is the successor to a Michigan corporation, of the same name, organized in 1897. The Company is engaged in the manufacture and sale of chemicals, plastic materials, agricultural and other specialized products and services. Its principal executive offices are located at 2030 Dow Center, Midland, Michigan 48674, telephone 989-636-1000. Except as otherwise indicated by the context, the terms "Company" or "Dow" as used herein mean The Dow Chemical Company and its consolidated subsidiaries.

## BUSINESS AND PRODUCTS

### Corporate Profile

Dow is a leading science and technology company that provides innovative chemical, plastic and agricultural products and services to many essential consumer markets. In 2001, Dow had annual sales of \$28 billion and employed more than 50,000 people. The Company serves customers in more than 170 countries and a wide range of markets that are vital to human progress, including food, transportation, health and medicine, personal and home care, and building and construction, among others. The Company has 208 manufacturing sites in 38 countries and supplies more than 3,200 products grouped within the operating segments listed on the following pages. The Corporate Profile is an integral part of Note R to the Consolidated Financial Statements.

### PERFORMANCE PLASTICS

**Applications:** automotive interiors, exteriors, chassis/powertrain and body engineered systems building and construction, thermal and acoustic insulation, roofing communications technology, telecommunication cables, electrical and electronic connectors computer housings and accessories footwear home and office furnishings: appliance insulation, mattresses, carpeting, flooring, furniture padding, office furniture packaging, food and beverage containers, protective packaging sports and recreation equipment wire and cable, including power utility and telecommunications

**Dow Automotive** delivers innovative solutions for automotive interior, exterior, chassis/powertrain and body engineered systems applications. As a leading global supplier of resins, engineering plastic materials, fluids, adhesives, sealants, structural enhancements and thermal and acoustical management solutions, Dow Automotive has been recognized for its automotive components and systems. It also provides research and development, design expertise and advanced engineering.

**Products:** BETABRACE reinforcing composites, BETADAMP acoustical damping systems, BETAFOAM NVH and structural foams, BETAGUARD sealants, BETAMATE structural adhesives, BETASEAL glass bonding systems, CALIBRE polycarbonate resins, Injection-molded dashmats and underhood barriers, INTEGRAL adhesive film, MAGNUM ABS resins, Polypropylene resins, PULSE engineering resins, QUESTRA crystalline polymers, RETAIN recycle content resins, SPECTRIM reaction moldable polymers, STRANDFOAM polypropylene foam, VYDYNE® nylon resins

**Engineering Plastics** business offers one of the broadest ranges of engineering polymers and compounds of any global plastics supplier. Dow's Engineering Plastics business complements its product portfolio with technical and commercial capabilities to develop solutions that deliver improved economics and performance to its customers.

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**Products:** AMPLIFY thermoplastic alloys, CALIBRE polycarbonate resins, EMERGE advanced resins, FULCRUM thermoplastic composite technology, INSPIRE performance polymers, ISOPLAST engineering thermoplastic polyurethane resins, MAGNUM ABS resins, PELLETHANE thermoplastic polyurethane elastomers, PREVAIL engineering thermoplastic resins, PULSE engineering resins, QUESTRA crystalline polymers, TYRIL SAN resins, VYDYNE nylon resins

**Epoxy Products and Intermediates** business manufactures a variety of basic epoxy products, as well as intermediates used by other major epoxy producers. Dow is a leading global producer of basic epoxy products, supported by high-quality raw materials, technical service and production capabilities.

**Products:** Acetone, Acrylic monomers, Allyl chloride, Bisphenol A, BLOX thermoplastic resins, D.E.H. epoxy catalyst resins, D.E.N. epoxy novolac resins, D.E.R. epoxy resins (liquids, solids and solutions), DERAKANE and

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DERAKANE MOMENTUM epoxy vinyl ester resins, Epichlorohydrin, OPTIM glycerine, Phenol  
**Fabricated Products** business manufactures and markets an extensive line of plastic film and foam products. Fabricated Products sets the competitive standard by creating high-performance solutions in industries ranging from packaging and construction to telecommunications, automotive and medical.

**Products:** COVELLE HF weldable polyolefin film, DOW backing layer film, ENVISION custom foam laminates, ETHAFOAM polyethylene foam, IMMOTUS acoustic panels, INSTILL vacuum insulation core, INTEGRAL adhesive film, LAMDEX polyolefin foam, OPTICITE label film, Polypropylene foam, PROCITE window envelope film, QUASH sound management foam, SARANEX barrier medical film, STYROFOAM brand products, SYNERGY soft touch foam, TANKLITE protective insulation, TRENCHCOAT protective film, TRYCITE polystyrene film, TRYMER polyisocyanurate foam, ZETABON coated metal cable armor

**Polyurethanes and Polyurethane Systems** businesses are leading global producers of polyurethane raw materials, polyurethanes and systems. Differentiated by their ability to globally supply a high-quality, consistent and complete product range, these businesses emphasize both existing and new business developments while facilitating customer success with a global market and technology network.

**Products:** THE ENHANCER and LIFESPAN carpet backings; GREAT STUFF polyurethane foam sealant; INSTA-STIK roofing adhesive; INTACTA performance polymers; ISONATE pure and modified methylene diphenyl diisocyanate (MDI); PAPI polymeric MDI; Propylene glycol; Propylene oxide; SYNTEGRA polyurethane dispersions; VORACOR, VORALAST and VORALUX polyurethane systems; VORANATE toluene diisocyanate; VORANOL and VORANOL VORACTIV polyether and copolymer polyols; WOODSTALK agrifiber composite panels

**Technology Licensing and Catalysts** business includes licensing of UNIPOL polypropylene process, as well as licensing and development of new polyethylene technologies, which are handled through Univation Technologies, LLC, a 50:50 joint venture. It also includes UOP LLC, a 50:50 joint venture. UOP is a worldwide supplier of process technology, catalysts, molecular sieves and adsorbents to the petrochemical and gas processing industries. Additionally, this business licenses the world's leading technologies for the production of ethylene oxide, ethylene glycol and oxo alcohols, and supplies related catalysts.

**Products:** LP OXO process, METEOR process, SHAC catalysts, UCAT catalysts, UNIPOL process

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**Wire & Cable Compounds** business is the leading global producer of a variety of performance polyolefin products that are marketed worldwide for wire and cable applications. Chief among these are polyolefin-based compounds for high-performance insulation, semiconductives and jacketing systems for power distribution, telecommunications and flame-retardant wire and cable.

**Products:** REDI-LINK polyethylene, SI-LINK crosslinkable polyethylene, UNIGARD HP high-performance flame-retardant compounds, UNIGARD RE reduced emissions flame-retardant compounds, UNIPURGE purging compounds, Wire and cable insulation and jacketing compounds

### PERFORMANCE CHEMICALS

**Applications:** agricultural and pharmaceutical products and processing building materials chemical processing and intermediates food processing and ingredients household products paints, coatings, inks, adhesives, lubricants personal care products pulp and paper manufacturing, coated paper and paperboard textiles and carpet water purification

**Custom and Fine Chemicals** business provides products and services to other specialty chemical, pharmaceutical, biopharmaceutical and agricultural chemical producers, and also produces fine chemicals for household paints and various other applications.

**Products:** Basic nitroparaffins and nitroparaffin-based specialty chemicals of ANGUS Chemical Company; fine and specialty chemicals from Chirotech Technology Limited, Mitchell Cotts, and Haltermann Products; Contract manufacturing services

**Emulsion Polymers** business is the world's largest supplier of synthetic latex and the most globally diverse of the styrene-butadiene latex suppliers. Dow is the largest supplier of latex for coating paper and paperboard used in magazines, catalogues, and food packaging. Dow is also the world's largest supplier of latexes used in carpet production.

**Products:** Acrylic latex, Butadiene-vinylidene latex, Polystyrene latex, Styrene-acrylate latex, Styrene-butadiene latex

**Industrial Chemicals** business provides products used as functional ingredients or processing aids in the manufacture of a diverse range of products. Dow's surfactants and biocides businesses provide value-added ingredients for household and personal care products.

**Products:** Biocides; CARBOWAX polyethylene glycols and methoxypolyethylene glycols; Diphenyloxide; DOW polypropylene glycols; DOWFAX, HAMPOSYL, TERGITOL and TRITON surfactants; DOWTHERM, SYLTHERM and UCARTHERM heat transfer fluids; UCAR deicing fluids; UCON fluids; VERSENE chelating agents

**Oxide Derivatives** business is the world's largest supplier of glycol ethers and amines to a diverse set of market applications including coatings, household products, gas treating and agricultural products.

**Products:** Alkyl alkanolamines, Ethanolamines, Ethylene oxide- and propylene oxide-based glycol ethers, Ethyleneamines, Isopropanolamines

**Specialty Polymers** business is a diverse portfolio serving numerous markets. The largest unit, Liquid Separations, uses several technologies to separate dissolved minerals and organics from water, making purer water for human and industrial uses.

**Products:** Acrolein derivatives; Acrylic acid/Acrylic esters; CYRACURE cycloaliphatic epoxides; DAXAD dispersants; DOWEX ion exchange resins; DRYTECH superabsorbent polymers; Epoxidized vegetable oils; FILMTEC membranes; Glycine; Peroxymeric;

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Polyvinyl acetate resins; Quaternaries; Redispersible polymer powders; Solution vinyl resins; Specialty monomers; Sulfur derivative compounds; Surface sizing polymers; TONE polyols, polymers and monomers

**UCAR Emulsion Systems** is a leading global supplier of water-based emulsions used as key components in decorative and industrial paints, adhesives, textile products, and construction products such as caulks and sealants. These products allow customers to formulate more environmentally friendly products that contain less or no solvent.

**Products:** NEOCAR branched vinyl ester latexes; POLYPHOBE rheology modifiers; UCAR all-acrylic, styrene-acrylic, and vinyl acrylic latexes

**Water Soluble Polymers** business provides a portfolio of high-value, multi-functional ingredients used to enhance the physical and sensory properties of end products in a wide range of applications including food, pharmaceuticals, oilfield, paints and coatings, personal care, building and construction, and many other specialty applications.

**Products:** AMERCHOL mixtures, CELLOSIZO hydroxyethyl cellulose, ETHOCEL ethylcellulose resins, METHOCEL cellulose ethers, POLYOX water-soluble resins

## AGRICULTURAL PRODUCTS

**Applications:** control of weeds, insects and diseases in plants seeds traits (genes) for crops and agriculture urban pest management

**Dow AgroSciences LLC** is a global leader in providing pest management and agricultural and crop biotechnology products. The business develops, manufactures and markets products for crop production; weed, insect and plant disease management; and industrial and commercial pest management. Dow AgroSciences is building a leading plant genetics and biotechnology business in crop seeds and traits for seeds through strategic acquisitions, alliances and research agreements, as well as internal research.

**Products:** Acetochlor herbicide products, CLINCHER herbicide, DITHANE fungicide, DURSBAN and LORSBAN insecticides, FIRSTRATE herbicide, FORTRESS fungicide, GARLON herbicide, GLYPHOMAX herbicide, GRANDSTAND herbicide, LONTREL herbicide, MUSTANG herbicide, MYCOGEN Seeds, PHYTOGEN cottonseeds, SENTRICON Termite Colony Elimination System, SPIDER herbicide, STARANE herbicide, STINGER herbicide, STRONGARM herbicide, TELONE soil fumigant, TORDON herbicide, TRACER NATURALYTE insect control, TREFLAN herbicide, VIKANE structural fumigant

## PLASTICS

**Applications:** appliances and appliance housings agricultural films automotive parts and trim beverage bottles building and construction consumer electronics consumer goods disposable diaper liners fibers films, bags and packaging for food and consumer products flexible and rigid packaging health and hygiene films and nonwovens housewares industrial films and foams information technology oil tanks and road equipment toys, playground equipment and recreational products wire and cable

**Polyethylene** business supplies polyethylene-based solutions through sustainable product differentiation. Dow is the world's leading producer of polyethylene resins, one of the most versatile plastic materials. DuPont Dow Elastomers LLC is a 50:50 joint venture that leverages INSITE Technology, Dow's proprietary catalyst and process technology, into elastomeric products.

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**Products:** AFFINITY polyolefin plastomers; ASPUN fiber grade resins; ATTANE ultra low density polyethylene resins; DOWLEX polyethylene resins; ELITE enhanced polyethylene resins; FLEXOMER very low density polyethylene resins; High density polyethylene resins (HDPE), including UNIVAL HDPE; Low density polyethylene resins (LDPE); PRIMACOR copolymers; SARAN barrier resins and films; TUFLIN linear low density polyethylene (LLDPE) resins

**Polystyrene** business, the global leader in the production of polystyrene resins, is uniquely positioned with geographic breadth and broad industry experience to meet a diverse range of customer needs. By implementing breakthrough proprietary technology, Dow continues to improve efficiencies and product performance.

**Products:** STYRON A-TECH advanced polystyrene resins, STYRON general purpose polystyrene resins, STYRON high-impact polystyrene resins, STYRON ignition-resistant polystyrene resins

**Polypropylene** business is leveraging Dow's innovative manufacturing technology, research and product development expertise to become a major global polypropylene supplier.

**Products:** Homopolymer polypropylene resins, Impact copolymer polypropylene resins, INSPIRE performance polymers, Random copolymer polypropylene resins

The Plastics segment also includes polybutadiene rubber, polyethylene terephthalate (PET), purified terephthalic acid (PTA), styrene-butadiene rubber and several specialty resins, as well as a new family of thermoplastic polymers with unique properties, ethylene styrene interpolymers, which were developed from INSITE Technology.

## CHEMICALS

**Applications:** alumina automotive antifreeze, coolant systems carpet and textiles chemical processing dry cleaning dust control household cleaners and plastic products inks metal cleaning packaging, food and beverage containers, protective packaging paints, coatings and adhesives personal care products petroleum refining pharmaceuticals, agricultural products plastic pipe pulp and paper manufacturing snow and ice control soaps and detergents water treatment

**Core Chemicals** business is a leading global producer of each of its basic chemical products, which are sold to many industries worldwide and also serve as key raw materials in the production of a variety of Dow's performance and plastics products.

**Products:** Acids, Alcohols, Aldehydes, Carbon tetrachloride, Caustic soda, Chlorine, Chloroform, DOWFLAKE calcium chloride, DOWPER dry cleaning solvent, Esters, Ethylene dichloride (EDC), LIQUIDOW liquid calcium chloride, Magnesium hydroxide, MAXICHECK procedure for testing the strength of reagents, MAXISTAB stabilizers for chlorinated solvents, Methyl chloride, Methylene chloride, PELADOW calcium chloride pellets, Perchloroethylene, SAFE-TAINER closed-loop delivery system, Trichloroethylene, Vinyl acetate monomer (VAM), Vinyl chloride monomer (VCM)

**Ethylene Oxide/Ethylene Glycol** business is the world's leading producer of ethylene oxide, used primarily for internal consumption, and ethylene glycol, which is sold for use in polyester fiber, PET for food and beverage applications, polyester film and antifreeze.

**Products:** Ethylene glycol (EG), Ethylene oxide (EO)

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## HYDROCARBONS AND ENERGY

**Applications:** polymer and chemical production power

**Hydrocarbons and Energy** business encompasses the procurement of fuels, natural gas liquids and crude oil-based raw materials, as well as the supply of monomers, power and steam for use in Dow's global operations. Dow is the world leader in the production of olefins and styrene.

**Products:** Benzene, Butadiene; Butylene; Cumene; Ethylene; Propylene; Styrene; Power, steam and other utilities

**Growth Platforms** business includes advanced electronic materials, industrial biotechnology and new developments with a focus on identifying and pursuing emerging commercial and technology opportunities. The results for Growth Platforms, as well as Cargill Dow LLC and Dow Corning Corporation, both of which are 50:50 joint ventures, and venture capital are included in Unallocated and Other.

### Industry Segments and Geographic Area Results

See Note R to the Consolidated Financial Statements for disclosure of information by operating segment and geographic area.

### Number of Products

Dow manufactures and supplies more than 3,200 products and services, and no single one accounted for more than 5 percent of the Company's consolidated sales in 2001.

### Competition

The Company experiences substantial competition in each of its industry segments. During 2001, the Company was the world's largest producer of chemicals and plastics, in terms of sales. The chemical industry has been historically competitive and this condition is expected to continue. The chemical divisions of the major international oil companies also provide substantial competition both in the United States and abroad. The Company competes worldwide on the basis of quality, price and customer service.

## Raw Materials

The Company operates in an integrated manufacturing environment. Basic raw materials are processed through many stages to produce a number of products that are sold as finished goods at various points in those processes.

The two major raw material streams that feed the integrated production of the Company's finished goods are chlorine-based and hydrocarbon-based raw materials.

Salt, limestone and natural brine are the base raw materials used in the production of chlor-alkali products and derivatives. The Company owns salt deposits in Louisiana, Michigan and Texas; Alberta, Canada; Brazil; and Germany. The Company also owns natural brine deposits in Michigan and limestone deposits in Texas.

Hydrocarbon raw materials include liquefied petroleum gases (LPG), crude oil, naphtha, natural gas and condensate. These raw materials are used in the production of both saleable products and energy. The Company also purchases electric power, benzene, ethylene and styrene to supplement internal production. Expenditures for hydrocarbons and energy accounted for 31% of the Company's operating costs and expenses for the year ended December 31, 2001. The Company purchases these raw materials on both short-term and long-term contracts.

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Other significant raw materials include acrylic acid, acrylonitrile, aniline, cellulose, octene, toluene diamine, and methanol. The Company purchases these raw materials on both short-term and long-term contracts.

The Company has, and expects to continue to have, adequate supplies of raw materials during 2002 and subsequent years.

## Method of Distribution

All products and services are marketed primarily through the Company's sales force, although in some instances more emphasis is placed on sales through distributors. No significant portion of the business of any operating segment is dependent upon a single customer.

## Research and Development

The Company is engaged in a continuous program of basic and applied research to develop new products and processes, to improve and refine existing products and processes and to develop new applications for existing products. Research and Development expenses were \$1,072 million in 2001 compared with \$1,119 million in 2000 and \$1,075 million in 1999. The Company employs approximately 7,057 people in various research and development activities.

## Patents, Licenses and Trademarks

The Company continually applies for and obtains United States and foreign patents. At December 31, 2001, the Company owned 3,154 active United States patents and 10,932 active foreign patents as follows:

	U.S.	Foreign
Performance Plastics	1,080	3,376
Performance Chemicals	264	666
Agricultural Products	427	1,744
Chemicals	52	144
Plastics	403	1,724
Hydrocarbons and Energy	27	139
Union Carbide patents	714	2,258
Other	187	881
	<b>3,154</b>	<b>10,932</b>



Dow's primary purpose in obtaining patents is to protect the results of its research for use in operations and licensing. Dow is also party to a substantial number of patent licenses and other technology agreements. The Company had revenue related to patent and technology royalties totaling \$185 million in 2001, \$278 million in 2000 and \$226 million in 1999, and incurred royalties to others of \$26 million in 2001, \$24 million in 2000 and \$31 million in 1999. Dow also has a substantial number of trademarks and trademark registrations in the United States and in other countries, including the "Dow in Diamond" trademark. Although the Company considers that, in the aggregate, its patents, licenses and trademarks constitute a valuable asset, it does not regard its business as being materially dependent upon any single patent, license or trademark.

### Principal Partly Owned Companies

Dow's principal nonconsolidated affiliates at December 31, 2001 and the Company's ownership interest for each are listed below:

Compañía Mega S.A. 28 percent an Argentine company that owns a natural gas separation and fractionation plant, which provides feedstocks to the Company's petrochemical plant, Petroquímica Bahía Blanca, located in Bahia Blanca, Argentina.

Dow Corning Corporation 50 percent manufacturer of silicone and silicone products. Dow Corning has voluntarily filed for protection under Chapter 11 of the United States Bankruptcy Code (see Item 3. Legal Proceedings and Note P to the Consolidated Financial Statements).

DuPont Dow Elastomers L.L.C. 50 percent manufactures and markets thermoset and thermoplastic elastomer products.

EQUATE Petrochemical Company K.S.C. 45 percent a Kuwait-based company that manufactures ethylene, polyethylene and ethylene glycol.

Nippon Unicar Company Limited 50 percent a Japan-based manufacturer of polyethylene and specialty polyethylene compounds and specialty silicone products.

Petromont and Company, Limited Partnership 50 percent a Canada-based manufacturer of olefins and polyethylene resins in Montreal and Varennes, Quebec, Canada.

Total Raffinaderij Nederland N.V. 45 percent provides feedstocks for Dow's major petrochemical site at Terneuzen, The Netherlands, and also services the Benelux and nearby countries.

UOP LLC 50 percent a U.S. company that supplies process technology, catalysts, molecular sieves and adsorbents to the petrochemical and gas-processing industries worldwide.

### Financial Information About Foreign and Domestic Operations and Export Sales

In 2001, the Company derived 58 percent of its sales and had 41 percent of its property investment outside the United States. While the Company's international operations may be subject to a number of additional risks, such as changes in currency exchange rates, the Company does not regard its foreign operations, on the whole, as carrying any greater risk than its operations in the United States. Information on sales and long-lived assets by geographic area for each of the last three years appears in Note R to the Consolidated Financial Statements, and discussions of the Company's risk management program for foreign exchange and interest rate risk management appear in Item 7A. Quantitative and Qualitative Disclosures about Market Risk and Note J to the Consolidated Financial Statements.

### Protection of the Environment

Matters pertaining to the environment are discussed in Item 3. Legal Proceedings, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, and Notes A and P to the Consolidated Financial Statements.

## Employees

Personnel count was 52,689 at December 31, 2001; 53,289 at the end of 2000; and 51,012 at the end of 1999.

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## Other Activities

Dow engages in the property and casualty insurance and reinsurance business primarily through its Liana Limited subsidiaries.

## ITEM 2. PROPERTIES

The Company operates 208 manufacturing sites in 38 countries. The Company considers that its properties are in good operating condition and that its machinery and equipment have been well maintained. The Company's chemicals and plastics production facilities and plants operated at approximately 76 percent of capacity during 2001. The following are the major production sites:

<i>United States:</i>	Plaquemine, Louisiana; Taft, Louisiana; Midland, Michigan; Freeport, Texas; Seadrift, Texas; Texas City, Texas; South Charleston, West Virginia.
<i>Canada:</i>	Fort Saskatchewan, Alberta; Prentiss, Alberta; Sarnia, Ontario.
<i>Germany:</i>	Boehlen; Leuna; Rheinmuenster; Schkopau; Stade.
<i>France:</i>	Drusenheim.
<i>The Netherlands:</i>	Terneuzen.
<i>Spain:</i>	Tarragona.
<i>Argentina:</i>	Bahia Blanca.
<i>Brazil:</i>	Aratu.

Including the major production sites, the Company has plants and holdings in the following geographic areas:

<i>United States:</i>	67 manufacturing locations in 22 states.
<i>Canada:</i>	9 manufacturing locations in 4 provinces.
<i>Europe:</i>	76 manufacturing locations in 19 countries.
<i>Latin America:</i>	30 manufacturing locations in 6 countries.
<i>Pacific:</i>	26 manufacturing locations in 11 countries.

All of Dow's plants are owned or leased, subject to certain easements of other persons which, in the opinion of management, do not substantially interfere with the continued use of such properties or materially affect their value.

A summary of properties, classified by type, is contained in Note G to the Consolidated Financial Statements.

## ITEM 3. LEGAL PROCEEDINGS

### Breast Implant Matters

The Company and Corning Incorporated (Corning) are each 50 percent stockholders in Dow Corning Corporation (Dow Corning). Dow Corning, the Company and/or Corning have been sued in a number of individual and class actions by plaintiffs seeking damages, punitive damages and injunctive relief in connection with injuries purportedly resulting from alleged defects in silicone breast implants. In addition, certain stockholders of the Company have filed separate consolidated class action complaints in the federal district court for the Southern District of New York alleging that the Company, Dow Corning or some of their respective Directors violated duties imposed by the federal

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securities laws regarding disclosure of alleged defects in silicone breast implants. All individual defendants in this case have been dismissed without prejudice.

On May 15, 1995, Dow Corning announced that it had voluntarily filed for protection under Chapter 11 of the United States Bankruptcy Code. Under Chapter 11, all claims against Dow Corning (although not against its co-defendants) are automatically stayed. As a consequence of that action and prior charges taken by Dow Corning, the Company fully reserved its investment in Dow Corning and reserved its 50 percent share of equity earnings through the third quarter of 2000.

It is impossible to predict the outcome of each of the above-described legal actions. However, it is the opinion of the Company's management that the possibility that these actions will have a material adverse impact on the Company's consolidated financial statements is remote, except as described below.

The Company's financial statement exposure for breast implant product liability claims against Dow Corning is limited to its investment in Dow Corning which, after fully reserving its investment in Dow Corning and reserving its share of equity earnings through the third quarter of 2000, is not material. As a result, any future charges by Dow Corning related to such claims or as a result of the Chapter 11 proceeding would not have a material adverse impact on the Company's consolidated financial statements.

The Company is separately named as a defendant in more than 14,000 breast implant product liability cases. In these situations, plaintiffs have alleged that the Company should be liable for Dow Corning's alleged torts based on the Company's 50 percent stock ownership in Dow Corning and that the Company should be liable by virtue of alleged "direct participation" by the Company or its agents in Dow Corning's breast implant business. These latter, direct participation claims include counts sounding in strict liability, fraud, aiding and abetting, conspiracy, concert of action and negligence.

Judge Sam C. Pointer of the U. S. District Court for the Northern District of Alabama was appointed by the Federal Judicial Panel on Multidistrict Litigation to oversee all of the product liability cases involving silicone breast implants filed in the U.S. federal courts. Initially, in a ruling issued on December 1, 1993, Judge Pointer granted the Company's motion for summary judgment, finding that there was no basis on which a jury could conclude that the Company was liable for any claimed defects in the breast implants manufactured by Dow Corning. In an interlocutory opinion issued on April 25, 1995, Judge Pointer affirmed his earlier ruling as to plaintiffs' corporate control claims but vacated that ruling as to plaintiffs' direct participation claims.

In his opinion, Judge Pointer reaffirmed the view he had expressed in his December 1993 ruling that the Company is a separate, independent entity from Dow Corning and therefore has no legal responsibility as a result of its ownership of Dow Corning stock for Dow Corning's breast implant business. However, Judge Pointer stated that, under the law of at least some states (although not necessarily all states), actions allegedly taken by the Company independent of its role as a stockholder in Dow Corning could give rise to liability under a negligence theory. Judge Pointer declined to address plaintiffs' other legal theories, including strict liability, fraud, aiding and abetting, conspiracy and concert of action. It is impossible to predict the outcome or to estimate the cost to the Company of resolving any of the federal product liability cases. The Company has filed claims with insurance carriers to recover in the event it is held liable in the federal (or any other) breast implant litigation.

After Judge Pointer's initial ruling in December 1993, summary judgment was granted to the Company in approximately 4,000 breast implant cases pending in state courts in California, Indiana, Michigan, New Jersey and New York, and over 100 actions in Pennsylvania were dismissed. Of these rulings, the California ruling was final and was appealed. On September 25, 1996, the California Court of Appeal for the 4<sup>th</sup> District affirmed the trial court's order granting summary judgment to the Company. On July 9, 1998, the California Supreme Court affirmed the decision of the Court of Appeal,

and the California summary judgment order in favor of the Company is now final. The Michigan ruling was made final on March 20, 1997. On September 14, 1999, the Michigan Court of Appeals affirmed summary judgment in *Maples v. The Dow Chemical Company*, a case determinative of all cases pending in Michigan state court. The time for filing a petition for leave to appeal to the Michigan Supreme Court has passed with no petition having been filed. Pursuant to a stipulated order, all cases that were pending on the state court docket will now be dismissed with prejudice. Since federal courts in diversity cases are bound to apply state court interpretations of state law questions, the *Maples* affirmance should also result in dismissal of all claims against the Company pending in federal court and governed by Michigan law. The New Jersey ruling has been reconsidered and all claims were again dismissed, except the negligence claim. Plaintiffs in New York filed a motion to reconsider based on Judge Pointer's April 25, 1995 ruling. On September 22, 1995, Judge Lobis, presiding over the consolidated New York

breast implant litigation, dismissed all counts of all cases filed against the Company in New York on the ground that no reasonable jury could find against the Company. On May 28, 1996, the New York Supreme Court Appellate Division affirmed the lower court's dismissal of all claims against the Company. New York's highest court subsequently denied plaintiffs' petition for review, and the order dismissing all claims against the Company is now final. Other rulings that are not final decisions are also subject to reconsideration. On October 20, 1996, in a Louisiana state court breast implant case styled *Spitzfaden v. Dow Corning, et al.*, the court entered an order maintaining certification of a class of Louisiana plaintiffs consisting of recipients of Dow Corning breast implants who, as of January 15, 1997, (i) are residents of Louisiana, (ii) are former residents of Louisiana who are represented by Louisiana counsel, or (iii) received their implants in Louisiana and are represented by Louisiana counsel, together with the spouses and children of such plaintiffs, and representatives of the estates of class members who are deceased. On August 18, 1997, at the conclusion of the first of four phases of this case, the jury found in part that the Company had been negligent in the testing and/or research of silicone, had misrepresented and concealed unspecified hazards associated with using silicone in the human body and had conspired with Dow Corning to misrepresent or conceal such hazards. The Company has appealed the jury's verdict. On December 1, 1997, the trial court decertified the class. The parties have since entered into a confidential settlement, the terms of which are dependent on the outcome of the appeal and are reflected, in part, in the Joint Plan (defined below). Any settlement amounts paid by the Company will be reimbursed by Dow Corning in accordance with the terms of the Joint Plan if the Joint Plan becomes effective. Further action in the *Spitzfaden* case itself will commence, if at all, only after the resolution of the pending appeal. The Company remains a defendant in other breast implant product liability cases originally brought in state courts and continues to be named as a defendant as cases are filed in various courts which are then transferred to the United States District Court, Eastern District of Michigan. It is impossible to predict the outcome or to estimate the cost to the Company of resolving any of the product liability cases described above.

On November 3, 1994, Judge Michael Schneider, presiding in the consolidated breast implant cases in Harris County, Texas, granted in part and denied in part the Company's motion for summary judgment. Judge Schneider granted the Company's motion as to (i) all claims based on the Company's stockholder status in Dow Corning, (ii) the claim that the Company was liable in negligence for failing to supervise Dow Corning, and (iii) plaintiffs' licensor-licensee claim. Judge Schneider denied the Company's motion with regard to plaintiffs' claims sounding in fraud, aiding and abetting, conspiracy, certain negligence claims and a claim brought under the Texas Deceptive Trade Practices Act. As a result, the Company remains a defendant as to such claims in the Harris County product liability cases. In those cases (and in cases brought in certain other jurisdictions including those before Judge Pointer), the Company has filed cross-claims against Dow Corning on the ground that if the Company and Dow Corning are found jointly and severally liable, Dow Corning should bear appropriate responsibility for the injuries judged to be caused by its product. In certain jurisdictions, the Company has also filed cross-claims and/or third party claims against Corning. It is impossible to predict the outcome or to estimate the cost to the Company of resolving any of the Harris County product liability cases.

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In an order dated December 1, 1994, Judge Frank Andrews, presiding in the consolidated breast implant cases in Dallas County, Texas, granted the Company's motion for summary judgment "in all respects except as to theories of conspiracy and strict liability as a component supplier." As a result, the Company remains a defendant as to such claims in the Dallas County product liability cases. It is impossible to predict the outcome or to estimate the cost to the Company of resolving any of these actions.

In addition to the jury findings in the first phase of the Louisiana state case noted above, three breast implant product liability cases brought against the Company have now been tried to judgment. In February 1995, a Harris County jury exonerated the Company in one case and found the Company jointly and severally liable with Dow Corning for \$5.23 million on a single count in a second case. After the verdict, however, the Court overturned the jury's verdict and entered judgment for the Company. On October 30, 1995, a state court jury in Reno, Nevada found the Company liable for \$4.15 million in compensatory damages and \$10 million in punitive damages. On December 31, 1998, the Nevada Supreme Court reversed and vacated the \$10 million punitive damages award and affirmed the \$4.15 million compensatory damages award. The Company filed a motion asking the Court to reconsider that portion of its opinion affirming the compensatory damages award. On February 12, 1999, that motion was denied. Subsequently, the parties negotiated a confidential settlement and the case has been dismissed with prejudice. The Company will be reimbursed by Dow Corning for all settlement amounts paid, in accordance with the terms of the Joint Plan if the Joint Plan becomes effective.

On May 13, 1997, United States District Court Judge Denise Page Hood ordered that all breast implant claims currently pending against the Company as to which judgment had not been entered, whether pending in state or federal courts, be transferred to the United States District Court, Eastern District of Michigan pursuant to a decision issued by the United States Court of Appeals for the Sixth Circuit on May 8, 1997. On August 1, 1997, Judge Hood issued her case management order with respect to the transferred claims, and ordered that all implant claims later filed in federal or state courts against the Company should likewise be transferred. On August 5, 1997, the Tort Committee in Dow Corning's bankruptcy case filed a petition for a writ of certiorari with the United States Supreme Court seeking review of the May 8, 1997 decision of the Sixth Circuit. On November 10, 1997, the Supreme Court denied the Tort Committee's petition.

On July 7, 1998, Dow Corning, the Company and Corning, on the one hand, and the Tort Claimants' Committee in Dow Corning's bankruptcy on the other, agreed on a binding Term Sheet to resolve all tort claims involving Dow Corning's silicone medical products, including

the claims against Corning and the Company (collectively, the Shareholders). The agreement set forth in the Term Sheet was memorialized in a Joint Plan of Reorganization (the Joint Plan) filed by Dow Corning and the Tort Claimants' Committee (collectively, the Proponents) on November 9, 1998. On February 4, 1999, the Bankruptcy Court approved the disclosure statement describing the Joint Plan. Before the Joint Plan could become effective, however, it was subject to a vote by the claimants, a confirmation hearing and all relevant provisions of the Bankruptcy Code. Voting was completed on May 14, 1999, and the confirmation hearing concluded on July 30, 1999.

On November 30, 1999, the Bankruptcy Court issued an Order confirming the Joint Plan, but then issued an Opinion on December 21, 1999 that, in the view of the Proponents and the Shareholders, improperly interpreted or attempted to modify certain provisions of the Joint Plan affecting the resolution of tort claims involving Dow Corning's silicone medical products against various entities, including the Shareholders. Many of the parties in interest, including the Shareholders, filed various motions and appeals seeking, among other things, a clarification of the December 21, 1999 Opinion. These motions and appeals were heard by U.S. District Court Judge Denise Page Hood on April 12 and 13, 2000, and on November 13, 2000, Judge Hood affirmed the Bankruptcy Court's November 30, 1999 Order confirming the Joint Plan and reversed, in part, the Bankruptcy Court's December 21, 1999

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Opinion, including that portion of the Opinion the Shareholders had appealed. In turn, various parties in interest appealed Judge Hood's decision to the United States Court of Appeals for the Sixth Circuit which heard oral arguments in the matter on October 23, 2001. On January 29, 2002, the Sixth Circuit issued its opinion which, among other things, affirmed Judge Hood's determination that claims against various entities, including the Shareholders, may be enjoined where "unusual circumstances" exist, and remanded the case to the District Court for certain factual determinations. The effectiveness of the Joint Plan remains subject to the District Court making such factual determinations and any subsequent appellate action. Accordingly, there can be no assurance at this time that the Joint Plan will become effective.

It is the opinion of the Company's management that the possibility is remote that plaintiffs will prevail on the theory that the Company should be liable in the breast implant litigation because of its shareholder relationship with Dow Corning. The Company's management believes that there is no merit to plaintiffs' claims that the Company is liable for alleged defects in Dow Corning's silicone products because of the Company's alleged direct participation in the development of those products, and the Company intends to contest those claims vigorously. Management believes that the possibility is remote that a resolution of plaintiffs' direct participation claims, including the vigorous defense against those claims, would have a material adverse impact on the Company's financial position or cash flows. Nevertheless, in light of Judge Pointer's April 25, 1995 ruling, it is possible that a resolution of plaintiffs' direct participation claims, including the vigorous defense against those claims, could have a material adverse impact on the Company's net income for a particular period, although it is impossible at this time to estimate the range or amount of any such impact.

#### **Environmental Matters**

On March 25, 1998, Dow AgroSciences LLC, a wholly owned subsidiary of the Company, made a written inquiry to the United States Environmental Protection Agency ("EPA") with regard to alleged violations of the Federal Insecticide, Fungicide and Rodenticide Act for which the EPA has verbally indicated that it is seeking a civil penalty in the amount of \$792,000.

On November 13, 1998, the Michigan Department of Environmental Quality ("MDEQ") commenced an investigation of alleged unpermitted release and improper storage of material containing dioxin and furans at Radian International LLC's ("Radian") waste treatment facility which is located within the Company's Michigan Operations manufacturing site. The Company and MDEQ have negotiated a consent order to settle this and several unrelated matters. Any potential liabilities of Radian are outside the scope of this consent order. MDEQ's procedures require a period for public comment, so the consent order is not yet final. The consent order would require Dow to pay a settlement amount of \$499,270; reimburse \$10,377 in costs of surveillance and enforcement; and undertake Supplemental Environmental Projects worth \$800,000. The Company may ultimately have indemnification rights against Radian.

On October 16, 2001, the Louisiana Department of Environmental Quality ("LDEQ") initiated an administrative enforcement action against the Company seeking a civil penalty of \$1,617,998.38. The LDEQ has alleged that the Company failed to monitor valves at its Plaquemine, Louisiana benzene plant for fugitive emissions for two separate time periods. The Company has requested an adjudicatory hearing regarding the alleged violations and the proposed penalty. While the Company expects the penalty will ultimately be significantly reduced, it is likely the final penalty will be greater than \$100,000.00.

#### **ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

No matter was submitted to a vote of security holders during the fourth quarter of 2001.

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**EXECUTIVE OFFICERS OF THE REGISTRANT**

Set forth below is information related to the Company's executive officers as of March 1, 2002.

**ARNOLD A. ALLEMANG, 59. DOW EXECUTIVE VICE PRESIDENT. DIRECTOR SINCE 1996.** Employee of Dow since 1965. Director of Technology Centers, Dow U.S.A. 1989-92. Manufacturing General Manager, Dow Benelux N.V.\* 1992-93. Regional Vice President, Manufacturing and Administration, Dow Benelux N.V.\* 1993. Vice President, Manufacturing Operations, Dow Europe S.A.\* 1993-95. Dow Vice President and Director of Manufacturing and Engineering 1996-97. Dow Vice President, Operations 1997-2000. Executive Vice President 2000 to date. Director of Dow Corning Corporation,\* Liana Limited\* and Dorinco Reinsurance Company.\* Representative on the Members Committee of DuPont Dow Elastomers L.L.C\* and Cargill Dow LLC.\* Director of the National Association of Manufacturers. Member of the American Chemical Society; the Advisory Board, Center for Chemical Process Safety, American Institute of Chemical Engineers; College of Engineering Advisory Council, Kansas State University; the Corporate Executive Board's Operations Management Roundtable and the National Academy of Engineering's Action Forum on Diversity.

**FRANK H. BROD, 47. DOW VICE PRESIDENT AND CONTROLLER.** Employee of Dow since 1975. Contoller, Essex Chemical Corporation\* 1988-91. Financial Contoller and Information Systems Director for Dow Chemical Company Limited\* 1991-93. Financial & Statutory Contoller 1993-95. Contoller, Dow Europe S.A.\* and Finance Director for Dow's Global Fabricated Products Business 1995-98. Global Accounting Director 1998-2000. Vice President and Contoller, The Dow Chemical Company 2000 to date. Director of Dow Credit Corporation; \* Dow Financial Holdings, Inc.;;\* Diamond Capital Management, Inc.;;\* Dow Hydrocarbons Resources, Inc.;;\* and Liana Limited.\* Vice Chairman of the Committee on Corporate Reporting of Financial Executives International. Member of American Institute of Certified Public Accountants and Texas Society of CPAs. Member of Accounting Advisory Board, Michigan State University and Northwood University; Development Board, Central Michigan University. Director of Wolverine Bank, FSB. Member of Financial Accounting Standards Board's Emerging Issues Task Force.

**RICHARD M. GROSS, 54. DOW CORPORATE VICE PRESIDENT OF RESEARCH AND DEVELOPMENT.** Employee of Dow since 1974. Research and Development Director, North American Chemicals and Metals/Hydrocarbons 1992-95. Vice President and Director of Global Core Technologies Research and Development 1995-98. Vice President and Director of Continental Operations 1995-97. Vice President and Director of Michigan Operations 1997-98. Vice President and Director of Research and Development 1998-2001. Corporate Vice President of Research and Development 2001 to date. Recipient of 1996 Genesis Award for Excellence in People Development. Member of the American Chemical Society, the American Institute of Chemical Engineers, the Industrial Research Institute, the Council for Chemical Research where he serves on the Governing Board Executive Committee as Chair, the Chemical Engineering Advisory Board at Worcester Polytechnic Institute, the Advisory Board of the National Science Resources Center, the Advisory Board for the College of Chemistry at the University of California, Berkeley, the National Research Council's Board on Chemical Sciences & Technology and the Michigan Molecular Institute Board.

**DAVID E. KEPLER, 49. DOW CORPORATE VICE PRESIDENT OF ELECTRONIC BUSINESS AND CHIEF INFORMATION OFFICER.** Employee of Dow since 1975. Computer Services Manager of Dow U.S.A. Eastern Division 1984-88. Commercial Director of Dow Canada Performance Products 1989-91. Director of Pacific Area Information Systems 1991-93. Manager of Information Technology for Chemicals and Plastics 1993-94. Director of Global Information Systems Services 1994-95. Director of Global Information Application 1995-98. Vice President 1998-2000. Chief Information Officer 1998 to date. Corporate Vice President of Electronic Business 2000 to date. e-Michigan Advisory Council appointee of Michigan Governor Engler. Director of U.S. Chamber of

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Commerce. Member of The Research Board Inc., the American Chemical Society, and the American Institute of Chemical Engineers.

**RICHARD L. MANETTA, 57. DOW CORPORATE VICE PRESIDENT AND GENERAL COUNSEL.** Employee of Dow since July 2001. Corporate Vice President and General Counsel July 2001 to date. Ford Motor Company Assistant General Counsel for Automotive Safety and Product Litigation 1989-94, Assistant General Counsel for Discovery 1994-99, Associate General Counsel for Litigation 1999-2000, Deputy General Counsel & Director of Regulatory Compliance 2000-July 2001. Member of the American Bar Association, Michigan State Bar, General Counsel Committee, The National Center for State Courts, Civil Justice Reform Group, and the Michigan General Counsel Association. Lifetime member of The Fellows of the Michigan State Bar Foundation.

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MICHAEL D. PARKER, 55. DOW PRESIDENT AND CHIEF EXECUTIVE OFFICER. DIRECTOR SINCE 1995. Employee of Dow since 1968. Dow Europe S.A.\* Product Marketing Manager for Epoxy Resins 1977-79. Director of Marketing for Inorganic Chemicals 1979-82. Director of Marketing for Organic Chemicals 1982-83. Commercial Director for the Functional Products Department 1983-84. Dow U.S.A. General Manager of the Specialty Chemicals Department 1984-87. Dow Chemical Pacific Limited\* Commercial Vice President 1987-88, President 1988-93. Dow Group Vice President 1993-96. Group Vice President Chemicals and Hydrocarbons 1993-95. Business Vice President for Chemicals 1995-2000. President Dow North America 1995-2000. Executive Vice President 1996-2000. President and Chief Executive Officer 2000 to date. Members Committee, Dow AgroSciences LLC.\* Director of Dow Corning Corporation\* and Univation Technologies, LLC.\* Director of the National Legal Center for the Public Interest. Director, Executive Committee member and Chair of the Finance Committee, the American Chemistry Council. Executive Committee of the Society of Chemical Industry American Section.

J. PEDRO REINHARD, 56. DOW EXECUTIVE VICE PRESIDENT AND CHIEF FINANCIAL OFFICER. DIRECTOR SINCE 1995. Employee of Dow since 1970. Dow Brazil Area Finance Director 1978-81. Dow Europe S.A.\* Finance Director 1981-85. Dow Assistant Treasurer 1984-85. Dow Europe S.A.\* Vice President 1985-88. Managing Director, Dow Italy 1985-88. Dow Treasurer 1988-96, Vice President 1990-95, Financial Vice President 1995-96, Chief Financial Officer 1995 to date, Executive Vice President 1996 to date. Chairman of the Board of Liana Limited\* and Dorinco Reinsurance Company.\* Chairman of the Members Committee, Dow AgroSciences LLC.\* Director of Dow Corning Corporation,\* Mycogen Corporation,\* Royal Bank of Canada and Sigma-Aldrich Corporation. Member of the Financial Executives Institute, The Conference Board's Council of Financial Executives and The National Advisory Board of The Chase Manhattan Corporation.

FERNANDO RUIZ, 46. DOW VICE PRESIDENT AND TREASURER. Employee of Dow since 1980. Treasurer, Ecuador Region 1982-84. Treasurer, Mexico Region 1984-88. Financial Operations Manager, Corporate Treasury 1988-91. Assistant Treasurer, USA Area 1991-92. Senior Finance Manager, Corporate Treasury 1992-96. Assistant Treasurer, The Dow Chemical Company 1996-2001. Corporate Director of Insurance and Risk Management 2001. President and Chief Executive Officer, Liana Limited\* and Dorinco Reinsurance Company\* 2001 to date. Vice President and Treasurer, The Dow Chemical Company, August 2001 to date. President of Dow Credit Corporation\* 2001 to date. Director of Dow Financial Services Inc.\* and Union Carbide Corporation\* 2001 to date. Member of Financial Executives International and the Midland Economic Development Council.

TINA S. VAN DAM, 55. DOW CORPORATE SECRETARY. Employee of Dow since 1987. Assistant Secretary 1993-2001. Director of the Office of the Corporate Secretary 1996-2001. Managing Counsel, Corporate and Securities Law 2001 to date. Corporate Secretary June 2001 to date. Director of the American Society of Corporate Secretaries. Northwood University's Distinguished Woman Award 2001, and Mitten Bay Girl Scout Council Woman of Distinction 1996. Member of the Securities

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and Exchange Commission Historical Society, Saginaw Valley State University Foundation, the American Bar Association, State Bar of Michigan and the Midland County Bar Association.

LAWRENCE J. WASHINGTON, JR., 56. DOW CORPORATE VICE PRESIDENT, ENVIRONMENT, HEALTH & SAFETY, HUMAN RESOURCES AND PUBLIC AFFAIRS. Employee of Dow since 1969. General Manager, Western Division 1987-90. Vice President, Dow North America, and General Manager of the Michigan Division 1990-94. Vice President, Human Resources 1994 to date. Vice President, Environment, Health & Safety and Public Affairs 1997 to date. Director of Chemical Bank and Trust Company and Liana Limited.\* Member of the National Advisory Board for Michigan Technological University and the Advisory Council, College of Engineering and Science, University of Detroit Mercy.

\* A number of Company entities are referenced to in the biographies and are defined as follows. (Some of these entities have had various names over the years. The names and relationships to the Company, unless otherwise indicated, are stated in this footnote as they existed as of March 1, 2002.) Cargill Dow LLC, Dow Corning Corporation, DuPont Dow Elastomers L.L.C. and Univation Technologies, LLC companies ultimately 50 percent owned by Dow. Diamond Capital Management, Inc.; Dorinco Reinsurance Company; Dow AgroSciences LLC; Dow Benelux N.V.; Dow Chemical Company Limited; Dow Chemical Pacific Limited; Dow Credit Corporation; Dow Europe S.A.; Dow Financial Holdings, Inc.; Dow Financial Services Inc.; Dow Hydrocarbons and Resources, Inc.; Essex Chemical Corporation; Liana Limited; Mycogen Corporation; and Union Carbide Corporation all ultimately wholly owned subsidiaries of Dow. Ownership by Dow described above may be either direct or indirect.

## PART II

### ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

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The principal market for the Company's common stock is the New York Stock Exchange. On February 14, 2002, the Board of Directors announced a quarterly dividend of \$0.335 per share, payable April 30, 2002, to stockholders of record on March 28, 2002. Since 1912, the Company has paid a dividend every quarter and in each instance Dow has maintained or increased the quarterly dividend. The Company declared dividends of \$1.295 per share in 2001 and \$1.16 per share in 2000 and in 1999.

At March 1, 2002, there were 124,094 registered common stockholders. The Company estimates that there were an additional 365,000 stockholders whose shares were held in nominee names at December 31, 2001.

Quarterly market and dividend information can be found in Part II, Item 8 (Financial Statements & Supplementary Data) on page 83.

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### ITEM 6. SELECTED FINANCIAL DATA

#### The Dow Chemical Company and Subsidiaries Five-Year Summary of Selected Financial Data

In millions, except as noted (*Unaudited*)

	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>
<b>Summary of Operations</b>					
Net sales (1)	\$ 27,805	\$ 29,534	\$ 25,859	\$ 25,101	\$ 27,476
Cost of sales (1)	23,652	24,131	20,300	19,395	20,750
Research and development expenses	1,072	1,119	1,075	1,026	990
Selling, general and administrative expenses	1,765	1,825	1,776	1,964	2,168
Amortization of intangibles	178	139	160	106	80
Purchased in-process research and development charges	69	6	6	349	
Special charges and merger-related expenses and restructuring	1,487		94	458	
Insurance and finance company operations, pretax income	30	85	150	124	127
Other income	423	706	424	1,166	657
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Earnings before interest, income taxes and minority interests	35	3,105	3,022	3,093	4,272
Interest expense net	648	519	432	458	355
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Income (Loss) before income taxes and minority interests	(613)	2,586	2,590	2,635	3,917
Provision (Credit) for income taxes	(228)	839	874	902	1,320
Minority interests' share in income	32	72	74	20	113
Preferred stock dividends			5	6	13
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Income (Loss) from continuing operations	(417)	1,675	1,637	1,707	2,471
Cumulative effect of change in accounting principle	32		(20)		(17)
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Net income (loss) available for common stockholders	\$ (385)	\$ 1,675	\$ 1,617	\$ 1,707	\$ 2,454
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<b>Per share of common stock (dollars): (2)</b>					
Income (Loss) from continuing operations basic	\$ (0.46)	\$ 1.88	\$ 1.87	\$ 1.92	\$ 2.72
Net income (loss) available for common stockholders basic	(0.43)	1.88	1.85	1.92	2.71



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In millions, except as noted (*Unaudited*)

Income (Loss) from continuing operations diluted	(0.46)	1.85	1.84	1.89	2.63
Net income (loss) available for common stockholders diluted	(0.43)	1.85	1.82	1.89	2.61
Cash dividends declared per share of Dow common stock	1.295	1.16	1.16	1.16	1.12
Cash dividends paid per share of Dow common stock	1.25	1.16	1.16	1.16	1.08
Book value (2)	\$ 11.04	\$ 13.22	\$ 12.40	\$ 11.34	\$ 11.17
Weighted-average common shares outstanding basic (2)	901.8	893.2	874.9	888.1	898.4
Weighted-average common shares outstanding diluted (2)	901.8	904.5	893.5	904.8	936.2
Convertible preferred shares outstanding			1.3	1.4	1.4
<b>Year-end Financial Position</b>					
Total assets	\$ 35,515	\$ 35,991	\$ 33,456	\$ 31,121	\$ 31,004
Working capital	2,183	1,150	2,848	1,570	1,925
Property gross	35,890	34,852	33,333	32,844	31,052
Property net	13,579	13,711	13,011	12,628	11,832
Long-term debt and redeemable preferred stock	9,266	6,613	6,941	5,890	5,703
Total debt	10,883	9,450	8,708	8,099	8,145
Net stockholders' equity	9,993	11,840	10,940	9,878	9,974
<b>Financial Ratios</b>					
Research and development expenses as percent of net sales (1)	3.9%	3.8%	4.2%	4.1%	3.6%
Income (Loss) before income taxes and minority interests as percent of net sales (1)	(2.2)%	8.8%	10.0%	10.5%	14.3%
Return on stockholders' equity (3)	(3.9)%	14.1%	14.7%	17.2%	24.5%
Debt as a percent of total capitalization	48.9%	42.5%	42.2%	43.6%	43.1%
<b>General</b>					
Capital expenditures	\$ 1,587	\$ 1,808	\$ 2,176	\$ 2,328	\$ 1,953
Depreciation	1,595	1,554	1,516	1,559	1,529
Salaries and wages paid	3,215	3,395	3,536	3,579	3,640
Cost of employee benefits	540	486	653	798	839
Number of employees at year-end (thousands)	52.7	53.3	51.0	50.7	55.9
Number of Dow stockholders of record at year-end (thousands)(4)	125.1	87.9	87.7	93.0	97.2

- (1) Adjusted for reclassification of freight on sales in 2000.
- (2) Adjusted for 3-for-1 stock split in 2000.
- (3) Included Temporary Equity in 1997-1999.
- (4) Stockholders of record as reported by the transfer agent. The Company estimates that there were an additional 365,000 stockholders whose shares were held in nominee names at December 31, 2001.

**ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

**FORWARD-LOOKING INFORMATION**

The Private Securities Litigation Reform Act of 1995 provides a "safe harbor" for forward-looking statements made by or on behalf of The Dow Chemical Company and its subsidiaries ("Dow" or the "Company"), which now includes Union Carbide Corporation ("Union Carbide"). This section covers the current performance and outlook of the Company and each of its operating segments. The forward-looking statements contained in this section and in other parts of this document involve risks and uncertainties that may affect the Company's operations, markets, products, services, prices and other factors as more fully discussed elsewhere and in filings with the U.S. Securities and Exchange Commission ("SEC"). These risks and uncertainties include, but are not limited to, economic, competitive, legal, governmental and technological factors. Accordingly, there is no assurance that the Company's expectations will be realized. The Company assumes no obligation to provide revisions to any forward-looking statements should circumstances change, except as otherwise required by securities and other applicable laws.

## **INTRODUCTORY NOTE TO READERS**

The accompanying consolidated financial statements of The Dow Chemical Company and its subsidiaries give retroactive effect to the merger of The Dow Chemical Company and Union Carbide, which was completed on February 6, 2001, and accounted for as a pooling of interests. Accordingly, the consolidated financial statements include the combined accounts of the two companies for all periods presented. See Note C to the Consolidated Financial Statements for additional information.

## **RESULTS OF OPERATIONS**

The year 2001 proved to be a remarkably challenging year for Dow. Like other companies in the chemical industry, Dow experienced the most difficult industry conditions that have existed in many years. The tragic events that began on September 11 further eroded consumer confidence and dampened the outlook for the global economy. The Company's results for the year reflect the significant negative impact of these macroeconomic and industry conditions. In the face of these conditions, however, Dow continued its strategic direction of the past few years substantially reducing costs, completing several acquisitions, accelerating the Six Sigma productivity program, and continuing to invest in research and development and value-growth initiatives. Foremost among the Company's actions in 2001 was the integration of Union Carbide following the completion of the merger on February 6, 2001. All of these actions are expected to significantly contribute to the Company's future earnings growth.

Dow's sales for 2001 were \$27.8 billion, compared with \$29.5 billion in 2000 and \$25.9 billion in 1999. Sales declined in 2001 as selling prices fell 6 percent, or \$1.6 billion, and volume remained relatively flat (see Sales Price and Volume table on page 28). Prices were lower in all operating segments, except Performance Chemicals, and across all geographic areas as the chemical industry experienced trough-level pricing of the business cycle. Although Dow completed several significant acquisitions in 2001, volume remained flat, reflecting the current economic environment. Volume improved substantially in Europe (due principally to the acquisitions of EniChem's polyurethanes business, Ascot Plc, the remaining 50 percent interest in Gurit-Essex AG, and Rohm and Haas Company's agricultural chemicals business) and slightly in Latin America and Asia Pacific, but was offset by declines in North America. Excluding acquisitions and divestitures, volume was down 3 percent.

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Sales in the United States accounted for 42 percent of total sales in 2001, compared with 43 percent in 2000 and 44 percent in 1999. Sales and other information by operating segment and geographic area are provided in Note R to the Consolidated Financial Statements.

From all indications, 2002 will also be challenging. Industry and macroeconomic trends are expected to be similar to 2001, although improvement is expected during the course of the year, especially in the United States. Given the slow demand within the chemical industry, several quarters of volume growth are needed to absorb excess industry capacity before margins will improve. Therefore, the benefits of lower feedstock and energy costs are expected to be constrained by lower selling prices throughout much of 2002. Despite this, Dow expects improved results in 2002, through the Company's continued emphasis on cost control, management of working capital, and the realization of merger-related cost synergies.

## **PERFORMANCE PLASTICS**

Performance Plastics sales decreased 5 percent to \$7.3 billion in 2001, compared with \$7.7 billion in 2000. Sales were \$7.0 billion in 1999. Volume decreased 1 percent from 2000, while prices decreased 4 percent. Excluding acquisitions, volume was down 8 percent, reflecting weak industry demand. Sales in 2000 reflected an 8 percent volume gain while prices increased slightly versus 1999.

Earnings before Interest, Income Taxes and Minority Interests ("EBIT") were \$643 million in 2001, compared with \$1.0 billion in 2000 and \$1.6 billion in 1999. EBIT decreased in 2001 due to softened demand across all geographic areas and intensified competitive price pressure. Profit margins were negatively impacted as lower prices more than offset lower feedstock costs. During 2000, EBIT decreased as higher feedstock costs and the negative impact of currency on sales in Europe more than offset volume growth, gains in local currency prices, and the

favorable results of Six Sigma efforts. Results for 2000 included an unusual charge of \$31 million from UOP LLC related primarily to losses associated with certain customer contracts coupled with restructuring charges. Results for this segment included favorable litigation settlements related to the licensing business of \$50 million in 1999.

Dow Automotive sales were up 21 percent from 2000 on a 19 percent increase in volume driven primarily by the acquisition of the remaining 50 percent of Gurit-Essex AG in January 2001. Excluding the impact of this acquisition, sales volume declined 13 percent from 2000, reflecting a drop in production by Dow Automotive's OEM customer base. Higher operating costs contributed to lower EBIT in 2001. Dow Automotive's strategy to reduce costs through global manufacturing consolidation led to the closing of a production facility in Poplar Bluff, Missouri, in the fourth quarter of 2001.

Engineering Plastics sales were down 7 percent compared with 2000. Industry demand softened in all geographic areas, resulting in a 4 percent volume decrease versus 2000. Sales of larger volume products including copolymers, polycarbonates and nylon were significantly reduced. Prices declined 3 percent, driven by excess industry capacity and lower raw material costs. During 2001, the successful start-up of a new polycarbonate manufacturing facility at the Yochon Petrochemical Industrial Complex in Yosu, Korea, was completed. This facility is owned and operated by LG Dow Polycarbonate Limited, a 50:50 joint venture between Dow and LG Chemical Ltd. EBIT for 2001 was down, reflecting lower demand and increased price competition.

Epoxy Products and Intermediates recorded a 14 percent decrease in sales compared with 2000. Volume decreased 12 percent, led by a sharp decline in demand in the electronics industry in Asia Pacific and North America. Competitive activity intensified as demand softened, resulting in a 2 percent price decline. Dow acquired a controlling interest in Pacific Epoxy Company Limited in the Republic of Korea during 2001 as part of its growth strategy. EBIT declined in 2001 due to lower volume.

Fabricated Products sales decreased 5 percent in 2001 as prices continued to be under pressure globally. Volume was flat versus 2000, despite recessionary conditions in the Japanese construction industry. The purchase of the assets of Celotex Corporation's rigid foam insulation business, which

included all Celotex brand polyisocyanurate insulation products, was completed in the third quarter of 2001, adding THERMAX insulating sheathing to Dow's existing line of residential insulation products. Production facility conversions to enable the use of alternative blowing agents in Europe were completed in 2001, meeting new environmental legislation requirements. EBIT decreased due to lower selling prices and the negative impact of currency in Europe.

Polyurethanes sales in 2001 were relatively flat versus the prior year. Volume increased 5 percent, driven primarily by Dow's acquisition of EniChem's polyurethanes business in April 2001. Excluding acquisitions, volume decreased 2 percent as global demand for durable goods softened. Prices decreased 5 percent, as capacity expansion within the industry resulted in a difficult pricing environment. During 2001, Dow expanded its manufacturing capacity for polyols and methylene diphenyl diisocyanate ("MDI"), and purchased manufacturing facilities and processing technology to produce engineered composite panels in Elie, Manitoba, Canada, from Isobord Enterprises, Inc. EBIT for 2001 was lower versus last year primarily due to lower selling prices and reduced profit margins.

Technology Licensing and Catalysts sales were down significantly from 2000 and as a result, EBIT was lower in 2001 compared with 2000. Licensees operated at lower rates in 2001 due to depressed market conditions. This resulted in reductions in lump sum license fees and running royalties from joint ventures and third parties, and lower catalysts sales.

Wire and Cable sales were down versus 2000. Volume decreased due to significant downturns in capital spending within the industry, primarily among fiber optic and underwater cable manufacturers. EBIT improved, however, as the business realized merger-related cost synergies.

#### **Outlook for 2002**

The Performance Plastics segment anticipates that conditions in some of its key markets will not improve before the second half of 2002. Competition is expected to remain aggressive for both volume and price until industry capacity utilization improves; therefore, sales are expected to be flat with 2001. While profitability is not expected to improve until economic conditions improve and demand increases, results for 2002 are expected to be higher compared with 2001.

Dow Automotive expects new products to deliver higher sales in 2002 and reduce the impact of the current weakness in the North American and European automotive industries. For Engineering Plastics, price competition is expected to intensify in 2002. New capacity for

MAGNUM ABS resins in Terneuzen, The Netherlands, is planned for 2002 to meet the growing demand for this technology.

Epoxy Products and Intermediates expects sales to remain weak until market conditions improve, particularly in the electronics industry. Fabricated Products anticipates continued price pressure in 2002. Capacity additions are planned in 2002 for Findlay, Ohio, and Estarreja, Portugal, to meet demand growth.

New industry capacity for propylene oxide and toluene diisocyanate ("TDI") is expected to result in continued competitive price pressure within Polyurethanes. Production of TDI in Dow will be shifted to our newer, state-of-the-art facilities to meet our requirements for efficiency and world-scale capability. Technology Licensing and Catalysts expects the competitive environment for catalysts to intensify in 2002, resulting in downward pressure on both price and volume, as new suppliers enter the market with competitive offerings using technologies based on recently expired patents.

Continued focus on asset and supply chain optimization, Six Sigma and synergy initiatives are expected to reduce operating expenses in 2002.

## PERFORMANCE CHEMICALS

Performance Chemicals sales were \$5.1 billion in 2001, compared with \$5.3 billion in 2000 and \$5.0 billion in 1999. Prices increased 1 percent versus last year, while volume declined 6 percent due to

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weak economic conditions. Volume was lower due to the divestitures of businesses required for regulatory approval of the Union Carbide merger (discussed in further detail below) and softening demand in the automotive, steel, and pulp and paper industries. The decline in volume due to divestitures was partially offset by the acquisition of Ascot Plc in the second quarter of 2001 (see Note C to the Consolidated Financial Statements). Volume growth was achieved in Europe, offset by declines in North America, Latin America and Asia Pacific. Sales in 2000 improved from 1999 due to volume growth of 6 percent.

EBIT in 2001 was \$611 million versus \$536 million in 2000 and \$805 million in 1999. The strong improvement in EBIT in 2001 reflects the combined impact of margin expansion due to price increases, the realization of cost synergies related to the Union Carbide merger and the acquisition of Ascot Plc, Six Sigma savings, continued productivity improvements, and lower feedstock and energy costs. EBIT in 2000 declined from 1999 as sharp increases in feedstock and energy costs were only partially offset by strong volume and continued productivity improvements.

Custom and Fine Chemicals sales increased significantly compared with 2000 due to the acquisitions of Ascot Plc in the second quarter of 2001 and the Collaborative Group's Biotechnology Services Division in the fourth quarter of 2000. In addition to these acquisitions, Dow's Custom and Fine Chemicals business includes the recent specialty and fine chemical acquisitions of Hampshire Fine Chemicals and ANGUS Chemical Company, and Dow's Contract Manufacturing Services business. In addition to scale and critical mass, Dow gained substantial new technical capabilities in chiral, nitroparaffins and distillation technologies through these acquisitions. This new business has unique capabilities to deliver solutions tailored to Dow's customers. EBIT declined in 2001 primarily due to implementation and integration costs associated with recent acquisition activity, as well as a decline in contracts in the Contract Manufacturing Services business.

Emulsion Polymers recorded a 2 percent increase in sales versus the prior year. Prices increased 7 percent despite a negative currency impact in Europe. Volume declined 5 percent due to weaker global demand for carpet and coated paper. EBIT improved significantly in 2001 as price increases restored margins that had been compressed by last year's increases in styrene monomer costs. In the fourth quarter of 2001, Dow and Reichhold, Inc. formed a new joint venture, Dow Reichhold Specialty Latex LLC, by combining the specialty latex businesses from both companies. The joint venture combines products, technologies and a global presence to better meet the unique needs of specialty latex customers around the world. As part of the transaction, Dow also purchased Reichhold's carpet and paper latex businesses.

Industrial Chemicals sales were down 5 percent in 2001 compared with 2000. Volume declined 6 percent while prices increased 1 percent. Volume declined primarily due to lower demand in the pulp and paper, automotive, and steel industries. EBIT in 2001 was relatively flat versus 2000.

Oxide Derivatives sales were down 23 percent compared with 2000. Volume declined 24 percent due primarily to the first quarter divestitures of Dow's ethylenamines, ethanalamines and North American gas treating businesses, which were required for regulatory approval of the Union Carbide merger. Excluding the impact of the divestitures, volume was down 8 percent compared with 2000 due to softening demand in North America and Europe and a focus on higher-margin markets. While results were positively impacted by price increases of

1 percent and the realization of merger-related cost synergies, EBIT declined slightly in 2001 due to the impact of divestitures and the weaker global economic environment.

Specialty Polymers sales were down 4 percent versus last year as volumes declined and prices remained flat. The decrease in volume was primarily driven by softening demand in the automotive industry partially offset by strong demand for FILMTEC membranes. EBIT improved in 2001 due to lower feedstock and energy costs and the realization of merger-related cost synergies.

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UCAR Emulsion Systems sales were up slightly versus last year, as a 2 percent increase in price was partially offset by a slight decline in volume. EBIT improved in 2001 due to the combined impact of higher prices, lower feedstock costs and the realization of merger-related cost synergies.

Water Soluble Polymers sales were down 2 percent versus 2000. Volume increased 1 percent due to steady demand in the construction industry driven by lower interest rates. Prices declined 3 percent primarily due to competitive pressures on CELLOSIZO hydroxyethyl cellulose. EBIT was down compared with 2000 due to reduced selling prices.

#### **Outlook for 2002**

Performance Chemicals expects sales growth in 2002 due to the recent acquisitions, capacity additions at a number of facilities and rebounding demand especially in customer-oriented markets. EBIT is also expected to improve in 2002 due to the realization of cost synergies from the various acquisitions completed in 2001, growth opportunities provided by these acquisitions, and continued focus on productivity improvements. Challenging industry conditions and the global economic environment, however, will continue to be a concern.

Capacity additions are planned for 2002 as follows: adding to its 2001 capacity expansion, FilmTec Corporation will add additional capacity for FILMTEC membranes at its Minneapolis, Minnesota, site to meet the strong demand for membranes; additional capacity for METHOCEL cellulose ethers will start up in Stade, Germany; and Emulsion Polymers will complete capacity expansions in Europe and Asia Pacific to meet the growing demand for styrene-butadiene latex in the coated paper, carpet and specialty latex industries.

#### **AGRICULTURAL PRODUCTS**

Sales of Agricultural Products for 2001 were \$2.6 billion, up from \$2.3 billion in both 2000 and 1999. Volume increased 15 percent versus 2000, but was partially offset by a decline in prices of 4 percent, which included the negative impact of currency in Europe and Asia Pacific. Volume increased due to acquisitions that occurred in 2001 and at the end of 2000. Excluding the impact of these acquisitions, volume improved 2 percent. Growth in traditional agricultural chemical applications was hampered in 2001 by eroding farm commodity prices and increasing acceptance of genetically modified crops. The amount of land reserved for corn crops remained flat, while soybean and cotton crops increased and most other crops declined. Dow AgroSciences participated in industry consolidations in 2001 with the acquisition of Rohm and Haas' agricultural chemicals business in June 2001 (see Note C to the Consolidated Financial Statements).

EBIT was \$104 million in 2001 versus \$212 million last year. EBIT for 2001 was reduced by a \$69 million charge for purchased in-process research and development ("IPR&D") associated with the Rohm and Haas acquisition. Excluding this charge, EBIT for 2001 was \$173 million. In 1999, EBIT of \$125 million was reduced by a \$94 million charge related to cost-reduction and business-restructuring programs (see Note B to the Consolidated Financial Statements).

The product lines acquired from the Rohm and Haas acquisition include DITHANE fungicide, GOAL herbicide, and the molt accelerating family of insecticides, including CONFIRM, MIMIC and INTREPID insecticides. These product lines complement and enhance Dow AgroSciences' portfolio by adding high-performance, brand name products for specialty crops, as well as turf and ornamental businesses around the world.

#### **Outlook for 2002**

While no significant improvement in selling prices is anticipated, the Rohm and Haas acquisition is expected to result in increased sales for Dow AgroSciences in 2002.

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The negative factors that influenced the agricultural industry's performance in 2001 are expected to continue throughout 2002. Crop prices, however, are expected to stabilize and begin a modest recovery, which should support some volume growth for conventional chemical crop protection products. It is expected that the trend toward genetically modified crop plantings will continue, but at a slower rate than experienced during recent years.

## PLASTICS

Plastics reported sales of \$6.5 billion in 2001, down 9 percent from 2000 with a price decline of 10 percent and a volume increase of 1 percent. Prices declined each quarter throughout the year with the more significant reductions occurring during the last half of the year. Sales in 2000 were \$7.1 billion, up from \$5.8 billion in 1999, as volume increased 8 percent and prices improved 15 percent.

EBIT for the year was \$125 million, down substantially from \$945 million in 2000. While the segment benefited from lower feedstock and energy costs versus last year, weak supply/demand balances resulted in a substantially larger decline in selling prices. EBIT was also reduced by significantly lower equity earnings in 2001. Equity earnings declined due to the consolidation of BSL in 2000 and the divestiture of Union Carbide's interest in Polimeri Europa S.r.l. in April 2001, which was required for regulatory approval of the merger (see Note C to the Consolidated Financial Statements). Also contributing to the decline were lower earnings reported by EQUATE Petrochemical Company K.S.C. and DuPont Dow Elastomers L.L.C., due to poor industry conditions. EBIT in 2000 was up 68 percent from \$564 million in 1999 due to higher selling prices and stronger equity earnings, despite abnormally high feedstock and energy costs and a downturn in volume and prices in the second half of 2000.

Polyethylene sales declined 11 percent in 2001, as prices fell and volume remained flat compared with last year. While prices fell in all geographic areas, volume increased in Europe and Latin America offset by declines in Asia Pacific and North America. Demand for AFFINITY polyolefin plastomers, PRIMACOR copolymers and SARAN resins allowed these products to maintain strong positions in both price and volume. The Union Carbide merger added significantly to Dow's polyethylene manufacturing infrastructure as well as enhanced the technology platform and product portfolio. Although the business benefited from lower, more stable feedstock and energy costs during the latter part of the year and the realization of merger-related cost synergies, EBIT declined significantly due to the sharp decline in selling prices.

Polystyrene sales were down 24 percent in 2001, with an 18 percent decrease in prices and a 6 percent decline in volume. Polystyrene prices dropped dramatically throughout 2001 as deteriorating worldwide economic conditions created an oversupply in both the styrene and polystyrene industries. The declining market price of benzene contributed to a significant drop in the cost of styrene, placing strong downward pressure on polystyrene prices. The entire industry was affected by oversupply and all geographic areas experienced highly competitive pricing conditions. Volume was down from 2000 due to declining industry demand and increased inventory destocking in the downstream polystyrene chain. Despite the challenging demand environment, sales of STYRON A-TECH polystyrene resins (introduced in 2000) continued to increase, experiencing an almost fourfold increase in sales. EBIT declined significantly from 2000 as prices fell faster than the decline in styrene monomer costs.

Polypropylene sales improved 15 percent in 2001, as a 28 percent improvement in volume more than offset a 13 percent decline in prices. Volumes improved primarily due to the December 2000 start-up of a new production facility in Freeport, Texas, the acquisition of a polypropylene plant from Basell in Cologne, Germany, and the completion of a debottlenecking project in South Africa at the Safripol facility. Demand for INSPIRE performance polymers (introduced in mid-2000) remained

strong during 2001. Prices fell due to low industry capacity utilization and weakening monomer prices. EBIT for the business declined in 2001 due to continuing weak industry fundamentals.

## Outlook for 2002

With the anticipated gradual improvement in global economic conditions during 2002, volume increases are expected in all businesses within the Plastics segment. Polyethylene volumes should increase, as inventory levels appear to be low throughout the global supply chain and the industry expects end-user demand to continue to grow at a 5 percent annual rate. Margins are expected to improve slightly as feedstock costs become less volatile. The Polystyrene business also expects improvement as both increases in base demand and restocking occur. Competitiveness within the polystyrene industry is expected to increase as new capacity comes on line in North America and Latin America. Polypropylene expects strong competitive pressures to continue in North America and Europe. Volume increases are expected through improved capacity utilization and a full year of operation at the Cologne plant. New capacity within the industry, however, will provide challenges during

the year.

## CHEMICALS

Chemicals sales were \$3.6 billion in 2001, compared with \$4.1 billion in 2000 and \$3.6 billion in 1999. Prices declined 5 percent versus 2000 primarily due to decreases in vinyl chloride monomer ("VCM") and ethylene glycol ("EG") prices, somewhat offset by higher caustic soda prices. Volume decreased 9 percent during the year as higher VCM volumes were more than offset by declining volumes for EG and oxo products. In 2000, prices improved 18 percent from 1999 while volume decreased 4 percent.

EBIT was \$111 million in 2001, down significantly from \$422 million in 2000 primarily due to declining prices and volumes. EBIT in 2000 was up from \$292 million in 1999 as higher feedstock and energy costs were offset by higher VCM, ethylene oxide ("EO")/EG, ethylene dichloride ("EDC") and caustic soda prices.

Declining GDP growth in North America and Europe created an unfavorable supply/demand balance during the first half of 2001 for polyvinyl chloride ("PVC"), the major end-use for VCM. As a result, VCM prices declined throughout the year.

Weakening global demand in the second half of 2001 resulted in lower prices and volume for caustic soda. Prices finished the year on a downward trend.

EG prices and volume were down in 2001 compared with 2000. Weak demand and high fuel gas costs in North America led to the temporary shutdown of the Company's EG plant in Prentiss, Alberta, Canada, in January 2001. Production was restarted in June and the plant operated for the balance of the year.

Prices were up slightly and volume down in the organic intermediates, solvents and monomers business compared with 2000. Volume decreased in part due to a slowdown in the coating and adhesives industry. Ethanol began the year in a shortage situation driven by the diversion of industrial product into fuel applications. Sharply falling energy prices reversed this trend later in the year.

## Outlook for 2002

At year-end 2001, trough-level pricing and depressed demand existed for most products in the Chemicals segment. In 2002, gradually improving GDP, especially in the United States, is expected to result in slowly improving demand compared with 2001.

The start-up of a manufacturing facility to produce EG, owned by the Company's OPTIMAL Glycols (Malaysia) Sdn Bhd joint venture, was delayed from late 2001 until the first quarter 2002.

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Likewise, the start-up of butyl acetate and butanol facilities owned by the Company's OPTIMAL Chemicals (Malaysia) Sdn Bhd joint venture was also delayed from late 2001 until the first quarter of 2002. New VCM capacity in Freeport, Texas, is scheduled to start up in the first quarter 2002. Additionally, Dow plans to upgrade its global chlor-alkali production facilities with membrane cell technology at its Stade, Germany, facility increasing plant capacity by 15 percent commencing in 2002.

## HYDROCARBONS AND ENERGY

Hydrocarbons and Energy sales were \$2.5 billion in 2001, compared with \$2.6 billion in 2000 and \$1.7 billion in 1999. Prices decreased 14 percent while volume grew 10 percent versus last year. Prices fell in response to slowing global economies and a decline in hydrocarbon feedstock costs in the second half of the year. Volume was up mainly due to increased power and refinery sales. In 2000, this segment experienced a 46 percent increase in prices and a 6 percent increase in volume versus 1999. Price increases in 2000 were driven by sharp increases in the cost of crude oil and related hydrocarbon feedstocks in the first half of 2000. Prices declined at the end of 2000 as the supply/demand situation became more balanced.

The Hydrocarbons and Energy business transfers materials to Dow's derivative businesses at cost. EBIT was a loss of \$22 million in 2001 versus income of \$136 million in 2000 and \$8 million in 1999. EBIT in 2000 included a gain of \$98 million on the sale of the Cochin pipeline system (see Note C to the Consolidated Financial Statements).

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Compared with 2000, the Company's cost of hydrocarbons and energy purchased materials in 2001 decreased approximately \$750 million, or 8 percent, due to price. The overall price decrease for the year was due to substantial declines in liquid feedstock and natural gas costs in the second half of the year compared with the last six months of 2000. On average for 2001, crude oil prices were approximately \$4 per barrel below 2000 levels. Oil-based feedstocks hit a low point in the fourth quarter of 2001 as crude oil prices averaged \$19 per barrel compared with an average of \$26 per barrel for the rest of the year. North American natural gas prices started the year at historically high levels and declined throughout the year. Prices hit a low point in the fourth quarter when U.S. Gulf Coast natural gas averaged approximately \$2.45 per million Btu.

Ethylene cracker operating rates were down compared with the prior year because of lower derivative demand. A new ethane-based cracker in Bahia Blanca, Argentina, started operations in 2001.

### Outlook for 2002

Crude oil and feedstock prices are expected to be slightly below 2001 average levels. Natural gas prices in North America are also expected to be below the 2001 average, driving down Dow's overall energy costs for 2002. Monomer prices are expected to decline in the first part of the year as weak demand continues. Prices may increase in the second half of the year, depending on the pace of the global economic recovery and the underlying feedstock costs.

In November, Dow announced plans to replace the olefins plants at Seadrift and Texas City, Texas, with a new olefin plant by 2005. In the first quarter of 2002, a major ethylene expansion at the Company's light-hydrocarbon plant in Terneuzen, The Netherlands, will start up.

### UNALLOCATED AND OTHER

Sales were \$276 million in 2001, \$325 million in 2000 and \$352 million in 1999. Sales in 2001 were down primarily due to the continued devaluation of the South African Rand and two small divestitures within the Sentrachem business. Sales in 2000 were down versus 1999 due to the reassignment of Safripol results to the Plastics segment after Dow obtained full ownership during 1999.

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EBIT was a loss of \$1.5 billion in 2001 compared with a loss of \$175 million in 2000 and a loss of \$350 million in 1999. Included in these results are developmental expenses related to Growth Platforms, overhead and other cost recovery variances not allocated to the operating segments, results of insurance and finance company operations, gains and losses on sales of financial assets, foreign exchange hedging results, Dow's share of the earnings/losses of Dow Corning Corporation ("Dow Corning") and Cargill Dow LLC, and the results of several small diversified businesses acquired in Dow's acquisition of Sentrachem Limited. EBIT for 2001 was negatively impacted by several unusual items: a special charge of \$1.5 billion for costs related to the Union Carbide merger (see Note B to the Consolidated Financial Statements), Dow's \$11 million share of a restructuring charge recorded by Dow Corning, which reduced equity earnings, and an \$11 million reinsurance loss on the World Trade Center (reflected in "Insurance and finance company operations"), offset by a \$266 million gain on the sale of stock in Schlumberger Ltd. EBIT in 2000 increased versus 1999 as lower stock-based compensation expenses, gains on sales of financial assets, and positive variances from budgets for overhead expenses were partially offset by the recognition of the anticipated loss on the disposition of certain businesses required for regulatory approval of the Union Carbide merger, merger-related expenses, and less favorable insurance and finance company results.

### Sales Price and Volume

Percent change from prior year	2001			2000			1999		
	Price	Volume	Total	Price	Volume	Total	Price	Volume	Total
<b>Operating Segments:</b>									
Performance Plastics	(4)%	(1)%	(5)%	1%	8%	9%	(5)%	7%	2%
Performance Chemicals	1	(6)	(5)		6	6	(5)	7	2
Agricultural Products	(4)	15	11	(4)	5	1	(3)		(3)
Plastics	(10)	1	(9)	15	8	23	3	14	17
Chemicals	(5)	(9)	(14)	18	(4)	14	(6)	5	(1)
Hydrocarbons and Energy	(14)	10	(4)	46	6	52	10	5	15



	2001			2000			1999		
Total	(6)%	(6)%	9%	5%	14%	(3)%	6%	3%	
<b>Geographic Areas:</b>									
United States	(3)%	(5)%	(8)%	9%	4%	13%	(3)%	5%	2%
Europe	(8)	10	2	8	6	14	(5)	7	2
Rest of World	(8)	(2)	(10)	11	7	18	(3)	9	6
Total	(6)%	(6)%	9%	5%	14%	(3)%	6%	3%	

Price includes the impact of currency.

## COMPANY SUMMARY

### Earnings before Interest, Income Taxes and Minority Interests ("EBIT")

EBIT for the Company was \$35 million in 2001, compared with \$3.1 billion in 2000 and \$3.0 billion in 1999. EBIT for 2001 declined as the favorable impact of lower feedstock and energy costs of approximately \$750 million was more than offset by the negative impact of lower selling prices of \$1.6 billion and lower equity earnings from joint ventures around the world. EBIT was further reduced in the year by the net impact of several significant unusual items: merger-related expenses and restructuring totaling \$1.5 billion related to the Union Carbide merger (see Note B to the Consolidated Financial Statements); a charge for IPR&D of \$69 million associated with the recent acquisition of Rohm and Haas' agricultural chemicals business (see Note C to the Consolidated Financial Statements); an \$11 million reinsurance loss on the World Trade Center (reflected in "Insurance and finance company operations"); Dow's \$11 million share of a restructuring charge recorded by Dow

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Corning in the third quarter (reflected in "Equity in earnings of nonconsolidated affiliates"); and a \$266 million gain on the sale of stock in Schlumberger Ltd. (reflected in "Sundry income net").

EBIT for 2000 improved versus 1999 as increased selling prices, strong volume gains, improved contributions from joint ventures around the world, and the favorable impact of currency on costs more than offset a greater than 50 percent increase in feedstock and energy costs. EBIT in 2000 was reduced \$20 million by the net impact of several unusual items. These items included a gain of \$98 million on the sale of the Cochin pipeline system, offset by IPR&D costs of \$6 million related to the acquisition of Flexible Products, recognition of the anticipated \$81 million loss on the disposition of certain businesses required for regulatory approval of the Union Carbide merger, and a nonrecurring charge of \$31 million from UOP LLC related primarily to losses associated with certain customer contracts coupled with restructuring charges.

EBIT in 1999 was reduced by the net impact of three unusual items: IPR&D costs of \$6 million associated with the acquisition of ANGUS Chemical and a special charge of \$94 million for a cost reduction and business restructuring program at Dow AgroSciences, offset by favorable litigation settlements totaling \$50 million related to the licensing business. See Note B to the Consolidated Financial Statements for a discussion of IPR&D costs and special charges.

Gross margin for 2001 decreased \$1.3 billion compared with 2000. While feedstock and energy costs were down approximately \$750 million versus last year, selling prices fell \$1.6 billion, drastically compressing margins. Gross margin in 2001 was also negatively impacted by lower operating rates. Gross margin for 2000 decreased \$156 million versus 1999, as higher feedstock and energy costs of \$3.1 billion more than offset increased selling prices and volume growth.

Dow's global plant operating rate for its chemicals and plastics businesses was 76 percent of capacity in 2001, down from 86 percent in 2000 and 88 percent in 1999. The decline in operating rate reflects reduced run rates at several of the Company's plants in an effort to manage inventory levels during a year of lower demand. Depreciation expense was \$1,595 million in 2001, compared with \$1,554 million in 2000 and \$1,516 million in 1999.

Operating expenses (research and development, and selling, general and administrative expenses) were \$2,837 million in 2001, down \$107 million from \$2,944 million in 2000 due to cost control efforts and the realization of merger-related cost synergies. Excluding growth initiatives, acquisitions and divestitures, operating expenses were down 7 percent from last year. Operating expenses in 1999 were \$2,851 million.

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Research and development expenses were \$1,072 million in 2001, down 4 percent from \$1,119 million in 2000 and flat versus \$1,075 million in 1999. Research and development expenses declined in 2001 as merger-related cost synergies were realized and spending on growth initiatives was intensely focused on those opportunities with the greatest potential for value creation.

Selling, general and administrative expenses were \$1,765 million in 2001, compared with \$1,825 million in 2000 and \$1,776 million in 1999. Selling, general and administrative expenses represented 6 percent of sales in 2001 and 2000, and 7 percent in 1999.

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### Operating Costs and Expenses

<i>Cost components as a percent of total</i>	<b>2001</b>	<b>2000</b>	<b>1999</b>
Hydrocarbons and energy	31%	34%	26%
Salaries, wages and employee benefits	13	14	18
Maintenance	4	4	4
Depreciation	6	6	6
Merger-related expenses and restructuring and IPR&D	5		
Supplies, services and other raw materials	41	42	46
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

During 2001, the Company completed the appraisal of the technology acquired with the purchase of Rohm and Haas' agricultural chemicals business and recorded an IPR&D charge of \$69 million in the Agricultural Products segment. See Notes B and C to the Consolidated Financial Statements for further details regarding the acquisition and IPR&D charge.

During 2001, a special charge of \$1.5 billion was recorded for merger-related expenses and restructuring, which included transaction costs, employee severance, the write-down of duplicate assets and facilities, and other merger-related expenses. The Company expects its integration plans and synergy activities to result in annual cost savings of \$1.1 billion by the end of the first quarter of 2003. By the end of 2001, the Company had taken actions that will result in annual cost savings of more than \$650 million. The cost reductions will affect cost of sales, research and development expenses, and selling, general and administrative expenses. These actions are not expected to have an impact on future revenues. For further details, see Note B to the Consolidated Financial Statements.

Dow's share of the earnings of nonconsolidated affiliates in 2001 amounted to \$29 million, down significantly from \$354 million in 2000 and \$95 million in 1999. Current year equity earnings were lower than last year primarily due to the consolidation of Gurit-Essex AG in the first quarter of 2001 and BSL in 2000, and the April 2001 divestiture of Union Carbide's interest in Polimeri Europa, which was required for regulatory approval of the Union Carbide merger (see Note C to the Consolidated Financial Statements). Lower results in several of the Company's basic plastics and chemicals joint ventures, which corresponded with the decline in the results of Dow's basics businesses, also contributed to the decline. The increase in equity earnings in 2000 reflected improved earnings in several of the Company's joint ventures around the world, including strong performance by several plastics joint ventures in Asia Pacific and Latin America, improved results from several hydrocarbons joint ventures in North America, final resolution of BSL matters related to the reconstruction period, and significantly better performance by Union Carbide joint ventures in Kuwait and Europe.

Through May 2000, equity earnings included the Company's share of the financial results of BSL during the reconstruction period. On June 1, 2000, BSL became a wholly owned subsidiary of the Company, after which the financial results of BSL were fully consolidated (see Note C to the Consolidated Financial Statements). From the first quarter of 1995 through the third quarter of 2000, the Company recorded and reserved its share of equity earnings in Dow Corning due to Dow Corning's filing for bankruptcy protection under Chapter 11 and the uncertainty of the recovery of that asset. Beginning in the fourth quarter of 2000, the Company is no longer reserving its share of Dow Corning's earnings. See Note P to the Consolidated Financial Statements for further discussion of Dow Corning's breast implant litigation.

Sundry income includes a variety of income and expense items such as the gain or loss on foreign currency exchange, dividends from investments, and gains and losses on sales of investments and assets. Sundry income for 2001 was \$394 million, compared with \$352 million in 2000 and \$329 million in 1999.

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Personnel count was 52,689 at December 31, 2001; 53,289 at the end of 2000; and 51,012 at the end of 1999. While the Company added approximately 3,500 employees during 2001 with the acquisitions of Ascot Plc, Rohm and Haas' agricultural chemicals business, EniChem's polyurethanes business, and Gurit-Essex AG, headcount decreased as synergies were realized through the integration of Union Carbide, as well as the integration of these acquisitions. The increase in 2000 over 1999 resulted from the addition of new employees acquired through several acquisitions, most notably the consolidation of BSL in June 2000, which added approximately 2,400 employees.

### Net Income

Net income available for common stockholders in 2001 was a loss of \$385 million or a loss of \$0.43 per share, compared with net income of \$1.7 billion or \$1.85 per share in 2000 and \$1.6 billion or \$1.82 per share in 1999. Results for 2001 were negatively impacted by lower selling prices of \$1.6 billion, which far exceeded the favorable impact of lower feedstock and energy costs of approximately \$750 million, and several unusual items. In addition to the unusual items discussed above for 2001, 2000 and 1999, net income (loss) for 2001 and 1999 was impacted by changes in accounting principles. In 2001, an after-tax transition adjustment gain of \$32 million was recognized related to the adoption of Statement of Financial Accounting Standards ("SFAS") No. 133, "Accounting for Derivative Instruments and Hedging Activities." In 1999, an after-tax charge of \$20 million was recorded related to the adoption of Statement of Position 98-5, "Reporting on the Costs of Start-Up Activities," the majority of which represented formation costs associated with Union Carbide's joint ventures. See Note A to the Consolidated Financial Statements for additional information regarding changes in accounting principles.

The following table summarizes the impact of unusual items on diluted earnings (loss) per common share:

In dollars	2001	2000	1999
<b>Unusual items:</b>			
IPR&D	\$ (0.05)	\$ (0.01)	\$ (0.01)
Dow AgroSciences' restructuring			(0.07)
Merger-related expenses and restructuring	(1.10)		
Reinsurance company loss on the World Trade Center	(0.01)		
Dow Corning restructuring	(0.01)		
UOP restructuring		(0.02)	
Gain on sale of Schlumberger stock	0.18		
Gain on sale of Cochin pipeline		0.07	
Recognition of anticipated loss on disposition of merger-related businesses		(0.06)	
Litigation settlements			0.05
Cumulative effect of change in accounting principle	0.04		(0.02)
<b>Total unusual items</b>	<b>\$ (0.95)</b>	<b>\$ (0.02)</b>	<b>\$ (0.05)</b>
Earnings (Loss) per common share as reported	\$ (0.43)	\$ 1.85	\$ 1.82
Earnings per common share excluding unusual items	\$ 0.52	\$ 1.87	\$ 1.87

Interest income in 2001 was \$85 million, compared with \$146 million in 2000 and \$132 million in 1999. The decline in interest income reflects a decrease in short-term investments, resulting from the Company's use of cash for acquisitions. Significant acquisitions are discussed in Note C to the Consolidated Financial Statements.

Interest expense (net of capitalized interest) and amortization of debt discount totaled \$733 million in 2001, compared with \$665 million in 2000 and \$564 million in 1999. Interest expense was up versus last year due to an increase in total debt partially offset by lower interest rates. Interest expense was

lower in 1999 due principally to lower average levels of short-term borrowings resulting from the use of proceeds from the issuance of preferred securities of a subsidiary to reduce commercial paper (see Note S to the Consolidated Financial Statements).

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The credit for income taxes was \$228 million in 2001 versus provisions of \$839 million in 2000 and \$874 million in 1999. Dow's overall effective tax rate for 2001 was 37.2 percent in 2001, compared with 32.4 percent for 2000 and 33.7 percent for 1999. U.S. and other tax law and rate changes during 2001 did not have a material impact on Dow. The underlying factors affecting Dow's overall effective tax rates are summarized in Note D to the Consolidated Financial Statements.

Minority interests' share of net income in 2001 was \$32 million, down from \$72 million in 2000 and \$74 million in 1999. The decline in minority interest largely resulted from decreased earnings for PBBPolisur S.A., which corresponded with the lower results of Dow's basics businesses.

### Liquidity and Capital Resources

The Company's cash flows from operating, investing and financing activities, as reflected in the Consolidated Statements of Cash Flows, are summarized in the following table:

In millions	2001	2000	1999
<b>Cash provided by (used in):</b>			
Operating activities	\$ 1,789	\$ 1,691	\$ 3,562
Investing activities	(2,674)	(1,094)	(3,531)
Financing activities	831	(857)	353
Effect of exchange rate changes on cash	(4)	(9)	(9)
<b>Net change in cash and cash equivalents</b>	<b>\$ (58)</b>	<b>\$ (269)</b>	<b>\$ 375</b>

Cash provided by operating activities in 2001 increased versus 2000 as the impact of lower receivables and inventories offset the impact of lower earnings for the year. Accounts receivable balances decreased in 2001 due to lower sales and increased sales of U.S. trade receivables. Inventory balances at December 31, 2001 (excluding the impact of acquisitions and divestitures) decreased due to lower feedstock costs compared with year-end 2000. Results for the year were negatively impacted by lower selling prices, reduced operating rates and a special charge for merger-related expenses and restructuring. Cash provided by operating activities declined in 2000 versus 1999 due to three primary factors: increases in accounts receivable balances, increases in inventory balances and the consolidation of BSL. Accounts receivable balances increased in 2000 due to higher sales. The year-over-year increase in accounts receivable was also affected by higher sales of U.S. trade receivables at year-end 1999. Inventory balances at December 31, 2000, increased due to higher feedstock costs and a slowdown in sales volume late in the fourth quarter. 1999 year-end inventory balances were lower due to increased customer demand late in the year. The consolidation of BSL and other acquisitions in 2000 resulted in a large impact on the change in other assets and liabilities affecting cash.

Cash used in investing activities increased in 2001 compared with 2000, principally due to \$2.3 billion invested in acquisitions, including Rohm and Haas' agricultural chemicals business, Ascot Plc, Gurit-Essex AG, and EniChem's polyurethanes business, offset by lower capital expenditures and investments in nonconsolidated affiliates. The reduction in cash used in investing activities for 2000 compared with 1999 reflected a \$2.4 billion increase in cash generated by sales of available-for-sale securities in excess of purchases of similar securities, partially offset by the net impact of lower capital expenditures and an increase in acquisitions, including Flexible Products, General Latex, the remaining 20 percent of BSL, and certain assets of Zeneca Limited and Cargill Hybrid Seeds.

Cash provided by financing activities increased in 2001 compared with 2000 and was attributable to \$3.2 billion of new long-term debt offset by reductions of \$1.8 billion in other short- and long-term

debt. Additional cash of \$500 million was generated from the issuance of preferred securities by a new subsidiary. Cash used in financing activities for 2000 principally relates to the payment of dividends. Cash provided by financing activities in 1999 was generated from the issuance of \$500 million of preferred securities and \$1.6 billion of new long-term debt offset by reductions of \$945 million in other short- and long-term debt.

### Working Capital at December 31

In millions	2001	2000
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Current assets	\$ 10,308	\$ 11,323
Current liabilities	8,125	10,173
Working capital	\$ 2,183	\$ 1,150
Current ratio	1.27:1	1.11:1

Cash, cash equivalents, marketable securities and interest-bearing deposits decreased \$177 million in 2001. At December 31, 2001, total inventories were \$4.4 billion, up from \$4.2 billion at year-end 2000, primarily due to the addition of inventories related to acquisitions. Days-sales-in-inventory for 2001 were 77 days versus 76 days in 2000. At December 31, 2001, trade receivables were \$2.9 billion, down from \$3.7 billion last year. Days-sales-outstanding-in-receivables (excluding the impact of sales of receivables) were 50 days in 2001 and 45 days in 2000.

Short-term borrowings of \$1.2 billion at December 31, 2001, were down from \$2.5 billion at year-end 2000, primarily due to the issuance of long-term debt. Long-term debt due within one year was \$408 million compared with \$318 million at year-end 2000. Long-term debt at year-end was \$9.3 billion, up from \$6.6 billion at year-end 2000 due to the refinancing of short-term borrowings and new long-term debt that was used to fund acquisitions and operations. During the year, \$3.2 billion of new long-term debt was incurred and \$259 million of long-term debt was retired. See Note I to the Consolidated Financial Statements for information regarding Dow's annual installments on long-term debt for the next five years.

Total debt was \$10.9 billion at year-end compared with \$9.5 billion at December 31, 2000. Net debt, which equals total debt less cash, cash equivalents, marketable securities and interest-bearing deposits, was \$10.6 billion at December 31, 2001, up from \$9 billion last year due to the use of funds for acquisitions and operations. Debt as a percent of total capitalization was 48.9 percent at the end of 2001, compared with 42.5 percent at year-end 2000.

At December 31, 2001, the Company had unused and available credit facilities with various U.S. and foreign banks totaling \$3.1 billion in support of its working capital requirements and commercial paper borrowings. Additional unused credit facilities totaling \$1.0 billion were available for use by foreign subsidiaries. At December 31, 2001, there was a total of \$1.7 billion available in SEC registered securities, as well as Japanese yen 70 billion (approximately \$533 million) available in yen-denominated securities through the Japanese Ministry of Finance and Euro 1.4 billion (approximately \$1.2 billion) available under the Company's Euro Medium-Term Note Program.

The Company uses a number of special purpose entities ("SPEs"), none of which involve Dow equity instruments. Some of the SPEs are used to finance non-operating assets, such as railcars and office buildings. Others are used to provide advantageous financing for manufacturing facilities. Those transactions that meet the requirements for operating lease treatment are recorded as such and are disclosed in Note H to the Consolidated Financial Statements, including information regarding future minimum lease commitments. Dow also uses SPEs for structured financing arrangements and to sell certain qualifying trade accounts receivables. See Notes K, Q and S to the Consolidated Financial Statements for additional information regarding these SPEs. There was no impact to earnings when the

SPEs were established, nor have there been unconsolidated residual earnings or losses in any of the SPEs.

See Note P to the Consolidated Financial Statements for information regarding the Company's outstanding purchase commitments.

In anticipation of the Union Carbide merger, the Company's authorizations to repurchase Dow stock were terminated by the Board of Directors on August 3, 1999. Prior to the terminations and under Board of Directors authorizations, the Company repurchased 12.8 million shares of its outstanding common stock in 1999. In December 1999, the Company sold 10.5 million shares of common stock held in treasury in the open market to facilitate the accounting treatment of the merger as a pooling of interests, which was a condition to the completion of the merger (see Note L to the Consolidated Financial Statements).

### Capital Expenditures

Capital spending for the year was \$1.6 billion, down 12 percent from \$1.8 billion in 2000 and 27 percent from \$2.2 billion in 1999. The lower capital spending in 2001 and 2000 reflected the completion of a new ethylene facility built jointly with Nova Chemicals Corporation and a polyethylene project, both of which started up in the second half of 2000, in Alberta, Canada. In 2001, approximately 40 percent of the

Company's capital expenditures was directed toward additional capacity for new and existing products, compared with 50 percent in 2000. Approximately 18 percent was committed to projects related to environmental protection, safety, loss prevention and industrial hygiene in 2001, compared with 13 percent in 2000. The remaining capital was utilized to maintain the Company's existing asset base, including projects related to productivity improvements, energy conservation and facilities support.

Major projects underway during 2001 included expansions of production facilities for VCM and EDC in Freeport, Texas, and chlorine and caustic soda in Stade, Germany. Because the Company designs and builds most of its capital projects in-house, it had no material capital commitments other than for the purchase of materials from fabricators.

#### **Dividends**

On February 14, 2002, the Board of Directors announced a quarterly dividend of \$0.335 per share, payable April 30, 2002, to stockholders of record on March 28, 2002. Since 1912, the Company has paid a dividend every quarter and in each instance Dow has maintained or increased the quarterly dividend. The Company declared dividends of \$1.295 per share in 2001 and \$1.16 per share in 2000 and in 1999.

#### **OTHER MATTERS**

##### **Accounting Changes**

See Note A to the Consolidated Financial Statements for a discussion of accounting changes.

##### **Environmental Matters**

###### *Environmental Policies*

Dow is committed to world-class environmental, health and safety ("EH&S") performance, as demonstrated by a long-standing commitment to RESPONSIBLE CARE and progress made toward the Company's EH&S Goals for 2005. In 1996, Dow publicly announced its voluntary global EH&S 2005 Goals ambitious performance targets to measure progress toward sustainable development, including targets to reduce chemical emissions, waste and wastewater by 50 percent. Equally aggressive

are Dow's EH&S 2005 Goals to reduce leaks, spills, fires, explosions, work-related injuries and transportation incidents by 90 percent. Dow continues to work aggressively toward attainment of these goals and our "Vision of Zero." More information on Dow's performance regarding environmental matters can be found in Dow's 2000 Public Report.

To meet the Company's public commitments, as well as the stringent laws and government regulations related to environmental protection and remediation to which its global operations are subject, Dow has well-defined policies, requirements and management systems. Dow's EH&S Management System ("EMS") defines for the businesses the "who, what, when and how" needed to achieve the Company's policies, requirements, performance objectives, leadership expectations and public commitments. EMS is also designed to minimize the long-term cost of environmental protection and to comply with these laws and regulations. Furthermore, EMS is integrated into a company-wide Management System for EH&S, Operations, Quality and Human Resources, including implementation of the global EH&S Work Process to improve EH&S performance and to ensure ongoing compliance worldwide. It is Dow's stated EH&S policy that all global operations and products meet Dow's requirements or their country's laws and regulations, whichever are more stringent.

It is also Dow's policy to adhere to a waste management hierarchy that minimizes the impact of wastes and emissions on the environment. First, Dow works to eliminate or minimize the generation of waste and emissions at the source through research, process design, plant operations and maintenance. Second, Dow finds ways to reuse and recycle materials. Finally, unusable or non-recyclable hazardous waste is treated before disposal to eliminate or reduce the hazardous nature and volume of the waste. Treatment may include destruction by chemical, physical, biological or thermal means. Disposal of waste materials in landfills is considered only after all other options have been thoroughly evaluated. Dow has specific requirements for wastes that are transferred to non-Dow facilities.

Dow believes third-party verification is a cornerstone of world-class EH&S performance and building public trust. Dow sites in Europe, Latin America, Australia and North America have received third-party verification of Dow's compliance with RESPONSIBLE CARE and with outside specifications such as ISO-14001. To date, nine sites globally have been ISO-14001 certified. In 1999, three U.S. manufacturing sites and the global headquarters in Midland voluntarily participated in a third-party RESPONSIBLE CARE Management Systems Verification

("MSV") to ensure that Dow has the processes and systems in place to reach the highest standards of EH&S excellence worldwide. In 2000, Canadian sites successfully completed their second third-party RESPONSIBLE CARE systems and performance assessment in the past five years. In 2001, Dow received the American Chemistry Council's highest award, the RESPONSIBLE CARE Leadership Award, for outstanding and sustained EH&S performance and for the second year in a row attained the number one ranking among chemical companies in the Dow Jones Sustainability Group Index.

On February 6, 2001, the Union Carbide merger was completed and Union Carbide became a wholly owned subsidiary of the Company. Prior to the merger, Dow and Union Carbide both were RESPONSIBLE CARE companies, committed to the Guiding Principles of RESPONSIBLE CARE, to EH&S performance improvement and to public accountability. Looking forward, this commitment will become only stronger as the full integration of the companies is achieved. In addition, Dow's EMS and EH&S Goals will be implemented at all Union Carbide sites, as well as all other acquisitions, in order to minimize environmental risks and impacts, both past and future. The following paragraphs outline some of these potential risks and how they are managed to minimize environmental impact and overall costs.

#### *Environmental Remediation*

Dow accrues the costs of remediation of its facilities and formerly owned facilities based on current law and existing technologies. The nature of such remediation includes, for example, the

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management of soil and groundwater contamination and the closure of contaminated landfills and other waste management facilities. In the case of landfills and other active waste management facilities, Dow recognizes the costs over the useful life of the facility. The policies adopted to properly reflect the monetary impacts of environmental matters are discussed in Note A to the Consolidated Financial Statements. To assess the impact on the financial statements, environmental experts review currently available facts to evaluate the probability and scope of potential liabilities. Inherent uncertainties exist in such evaluations primarily due to unknown conditions, changing governmental regulations and legal standards regarding liability, and evolving technologies. These liabilities are adjusted periodically as remediation efforts progress or as additional technical or legal information becomes available. Dow had an accrued liability of \$397 million at December 31, 2001, related to the remediation of current or former Dow-owned sites. The Company has not recorded as a receivable any third-party recovery related to these sites. In addition, Dow continues the lawsuit it filed in November 1999 against several of its insurers, seeking recovery of remediation costs at certain current or former Dow-owned sites.

In addition to current and former Dow-owned sites, under the Federal Comprehensive Environmental Response, Compensation and Liability Act and equivalent state laws (hereafter referred to collectively as "Superfund Law"), Dow is liable for remediation of other hazardous waste sites where Dow allegedly disposed of, or arranged for the treatment or disposal of, hazardous substances. Dow readily cooperates in the remediation of these sites where the Company's liability is clear, thereby minimizing legal and administrative costs. Because Superfund Law imposes joint and several liability upon each party at a site, Dow has evaluated its potential liability in light of the number of other companies that also have been named potentially responsible parties ("PRPs") at each site, the estimated apportionment of costs among all PRPs, and the financial ability and commitment of each to pay its expected share. Management's estimate of the Company's remaining liability for the remediation of Superfund sites at December 31, 2001, was \$47 million, which has been accrued, although the ultimate cost with respect to these sites could exceed that amount. In addition, receivables of \$7 million for probable recoveries from other PRPs have been recorded related to Superfund sites.

In total, the Company's accrued liability for probable environmental remediation and restoration costs was \$444 million at December 31, 2001, compared with \$508 million at the end of 2000. This is management's best estimate of the costs for remediation and restoration with respect to environmental matters for which the Company has accrued liabilities, although the ultimate cost with respect to these particular matters could range up to twice that amount. It is the opinion of the Company's management that the possibility is remote that costs in excess of those accrued or disclosed will have a material adverse impact on the Company's consolidated financial statements.

The amounts charged to income on a pretax basis related to environmental remediation totaled \$47 million in 2001, \$53 million in 2000 and \$85 million in 1999. Capital expenditures for environmental protection were \$179 million in 2001, \$166 million in 2000 and \$147 million in 1999.

#### **Asbestos-Related Matters of Union Carbide Corporation**

Union Carbide Corporation, a wholly owned subsidiary of the Company, has filed its annual report on Form 10-K for the year ended December 31, 2001, and has provided the disclosure below concerning asbestos. Note P to Dow's Consolidated Financial Statements provides some additional information related to Union Carbide's asbestos-related liability. In view of the exposure of Union Carbide to asbestos-related

liability noted below, the related insurance coverage available to Union Carbide, and its stated intention to aggressively defend or reasonably resolve, as appropriate, the pending asbestos cases and any additional asbestos cases as may be filed in the future, the Company does not consider Union Carbide's asbestos-related liability to be material to Dow's consolidated financial statements. The disclosures contained in Union Carbide's Form 10-K are provided in this filing to more broadly disclose information concerning Union Carbide's asbestos-related liability. References below to the "Corporation" or to "UCC" refer to Union Carbide Corporation.

"The Corporation and its subsidiaries are involved in a number of legal proceedings and claims with both private and governmental parties. These cover a wide range of matters, including, but not limited to: product liability; trade regulation; governmental regulatory proceedings; health, safety and environmental matters; employment; patents; contracts; taxes; and commercial disputes. In some of these legal proceedings and claims, the cost of remedies that may be sought or damages claimed is substantial.

"Separately, the Corporation is involved in a large number of asbestos-related suits filed, for the most part, in various state courts at various times over the past three decades. These suits principally allege personal injury resulting from exposure to asbestos-containing products and frequently seek both general and punitive damages, often in very large amounts. The alleged claims primarily relate to products that UCC sold in the past; alleged exposure to asbestos-containing products located on UCC's premises; and UCC's responsibility for asbestos suits filed against a divested subsidiary Amchem Products, Inc. ("Amchem").

"Typically, the Corporation is only one of many named defendants, many of which, including UCC and Amchem, were members of the Center for Claims Resolution ("CCR") which sought to resolve asbestos cases on behalf of its members. As members of the CCR, the Corporation's and Amchem's strategy was to settle claims as two relatively small (percentage wise) members of the CCR group. The CCR has ceased operating in this manner although it still administers certain settlements. The Corporation now utilizes Peterson Asbestos Claims Enterprise for claims processing and insurance invoicing.

"During the third quarter of 2001, plaintiffs filed asbestos-related suits against the Corporation and Amchem at a rate greater than the historical average, but filings returned to a lower rate during the fourth quarter. This third quarter increase in claims against UCC and Amchem was influenced by the bankruptcy filings of several former CCR members. More recently filed cases against the Corporation and Amchem contain a greater percentage of claims that do not allege a particular injury ("Non-Specific Claims").

"Dow now owns 100 percent of the Corporation and has been retained to provide its experience in mass tort litigation to manage the Corporation's response to asbestos-related liability. The Corporation has hired new outside counsel to serve as national trial counsel to aggressively defend or reasonably resolve, as appropriate, both pending and future cases. The Corporation expects more asbestos-related suits to be filed against it and Amchem in the future. The Corporation cannot estimate the range of liability that will result from these future cases. As a consequence of all of the above-stated facts, the Corporation lacks any remotely comparable loss history from which to assess either the number of or the value of future claims. To date, substantially all of the amounts paid by the Corporation to resolve asbestos-related suits have been covered by third-party insurance.

"For pending cases, the Corporation had asbestos-related litigation accruals of \$233 million and \$118 million at December 31, 2001 and 2000, respectively, and related insurance recovery receivables of \$223 million and \$108 million at December 31, 2001 and 2000, respectively. The litigation accrual at December 31, 2001, was determined by considering the number of pending claims filed against the Corporation and Amchem, taking into account claims administration records indicating the severity of the alleged injury. Because many of the pending claims are Non-Specific Claims, the Corporation has calculated several probable liability outcomes based on estimates and historic distributions of personal injury claim types and settlement and resolution amounts. The liability estimates ranged from a low of \$158 million to a high of \$277 million. Upon review by management, it was determined that the most reasonable estimate was \$233 million, which is well within the estimable range. The Corporation's asbestos litigation accrual at

December 31, 2001, increased compared with the end of 2000 principally as a result of the higher level of claims that were filed during the third quarter of 2001.



"The insurance receivable for asbestos-related liability at December 31, 2001, was determined after a thorough review of applicable insurance policies and the 1985 Wellington Agreement, to which the Corporation and many of its liability insurers are signatory parties, as well as other insurance settlements, with due consideration given to applicable deductibles, retentions, and policy limits, and taking into account the solvency and historical payment experience of various insurance carriers. The insurance receivable associated with the most reasonable probable liability outcome for pending claims is \$223 million and has been recorded. This resulted in a net income statement impact to the Corporation of \$2 million for asbestos-related expense in 2001. In all of the probable outcomes for pending claims, sufficient insurance coverage exists to provide a similar percentage of coverage for the accrued liability. If the maximum probable outcome were in fact to materialize, the impact would be an additional charge of \$2 million to income, which is not material to the financial statements. In addition, insurance is available for future claims.

"The amounts recorded for the litigation accrual and related insurance receivable are based upon currently known facts. If the number of claims and the cost to resolve such claims differ from the current assumptions used by management in arriving at its estimates for the recorded amounts, this may impact management's future assessments of the ultimate outcome of asbestos-related legal proceedings.

"While it is not possible at this time to determine with certainty the ultimate outcome of any of the legal proceedings and claims referred to in this filing, management believes that adequate provisions have been made for probable losses with respect to pending claims and proceedings, and that the ultimate outcome of all known and future claims, after provisions for insurance, will not have a material adverse effect on the consolidated financial position of the Corporation, but could have a material effect on consolidated results of operations in a given quarter or year. Should any losses be sustained in connection with any of such legal proceedings and claims in excess of provisions provided and available insurance, they will be charged to income when determinable."\*

There are inherent uncertainties associated with asbestos litigation. Dow recognizes that future facts, events and legislation may alter estimates of probable outcomes. Dow assessed the known facts and circumstances of Union Carbide's asbestos-related litigation and believes that adequate provisions have been made for probable losses with respect to pending claims and proceedings.

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Union Carbide Corporation, Annual Report on Form 10-K for the Year Ended December 31, 2001, Management's Discussion and Analysis of Financial Condition and Results of Operations, Asbestos-Related Matters.

## **Euro Conversion**

On January 1, 1999, the Euro was adopted as the national currency of 11 European Union member nations. During a three-year transition period, the Euro was used as a non-cash transactional currency. The Company began conducting business in the Euro on January 1, 1999. Effective January 1, 2001, the Company had completed its change of functional currencies for its subsidiaries operating in the participating member nations from the national currency to the Euro. The conversion to the Euro did not have an operational impact on the Company or an impact on the results of operations, financial position, or liquidity of its European businesses.

## **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Dow's business operations give rise to market risk exposure due to changes in foreign exchange rates, interest rates, commodity prices and other market factors such as equity prices. To manage such risks effectively, the Company enters into hedging transactions, pursuant to established guidelines and policies, which enable it to mitigate the adverse effects of financial market risk. A secondary objective is to add value by creating additional exposure within established limits and policies; derivatives used for this purpose are not designated as hedges per SFAS No. 133. The potential impact of creating such additional exposures is not material to the Company's results.

The global nature of Dow's business requires active participation in the foreign exchange markets. As a result of investments, production facilities and other operations on a global basis, the Company has assets, liabilities and cash flows in currencies other than the U.S. dollar. The primary objective of the Company's foreign exchange risk management is to optimize the U.S. dollar value of net assets and cash flows, keeping the adverse impact of currency movements to a minimum. To achieve this objective, the Company hedges on a net exposure basis using foreign currency forward contracts, over-the-counter option contracts, and nonderivative instruments in foreign currencies. Main exposures are related to assets and liabilities denominated in the currencies of Europe, Asia Pacific and Canada; bonds denominated in foreign currencies mainly the Euro and Japanese yen; and economic exposure derived from the risk that currency fluctuations could affect the U.S. dollar value of future cash flows.

The majority of the foreign exchange exposure is related to European currencies and the Japanese yen.

The main objective of interest rate risk management is to reduce the total funding cost to the Company and to alter the interest rate exposure to the desired risk profile. Dow uses interest rate swaps, "swaptions," and exchange traded instruments to accomplish this objective. The Company's primary exposure is to the U.S. dollar yield curve.

Inherent in Dow's business is exposure to price changes for several commodities. Some exposures can be hedged effectively through liquid tradable financial instruments. Cracker feedstocks and natural gas constitute the main commodity exposures. Over-the-counter and exchange traded instruments are used to hedge these risks when feasible.

Dow has a portfolio of equity securities derived from its acquisition and divestiture activity. This exposure is managed in a manner consistent with the Company's market risk policies and procedures.

Dow uses value at risk ("VAR"), stress testing and scenario analysis for risk measurement and control purposes. VAR estimates the potential gain or loss in fair market values, given a certain move in prices over a certain period of time, using specified confidence levels. On an ongoing basis, the Company estimates the maximum gain or loss that could arise in one day, given a two-standard-deviation move in the respective price levels. These amounts are relatively insignificant in comparison to the size of the equity of the Company. The VAR methodology used by Dow is based primarily on the variance/covariance statistical model. The following table is given as an example:

**Average Daily VAR at December 31\***

In millions	2001	2000
Foreign exchange	\$ 13	\$ 7
Interest rate	70	45
Equity exposures, net of hedges	9	26
Commodities	5	28

\*  
Using a 95 percent confidence level

See Note J to the Consolidated Financial Statements for further disclosure regarding market risk.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

**Management Statement of Responsibility**

The management of The Dow Chemical Company and its subsidiaries prepared the accompanying consolidated financial statements and has responsibility for their integrity, objectivity and freedom from material misstatement or error. These statements were prepared in accordance with accounting principles generally accepted in the United States of America. The financial statements include amounts that are based on management's best estimates and judgments. Management also prepared the other information in this annual report and is responsible for its accuracy and consistency with the financial statements. The Board of Directors, through its Audit Committee, assumes an oversight role with respect to the preparation of the financial statements.

Management recognizes its responsibility for fostering a strong ethical climate so that the Company's affairs are conducted according to the highest standards of personal and corporate conduct. Management has established and maintains internal controls that provide reasonable assurance as to the integrity and reliability of the financial statements, the protection of assets from unauthorized use or disposition, and the prevention and detection of fraudulent financial reporting.

Internal controls provide for appropriate division of responsibility and are documented by written policies and procedures that are communicated to employees with significant roles in the financial reporting process and updated as necessary. Management continually monitors internal controls for compliance. The Company maintains a strong internal auditing program that independently assesses the effectiveness of the internal controls and recommends possible improvements.

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Deloitte & Touche LLP, independent auditors, with direct access to the Board of Directors through its Audit Committee, have audited the consolidated financial statements prepared by the Company, and their report follows.

Management has considered recommendations from the internal auditors and Deloitte & Touche LLP concerning internal controls and has taken actions that are cost-effective in the circumstances to respond appropriately to these recommendations. Management further believes the controls are adequate to accomplish the objectives discussed herein.

/s/ M. D. PARKER

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M. D. Parker  
President and Chief Executive Officer

/s/ J. P. REINHARD

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J. P. Reinhard  
Executive Vice President and Chief Financial Officer

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### Independent Auditors' Report

*To the Stockholders and Board of Directors of The Dow Chemical Company:*

We have audited the accompanying consolidated balance sheets of The Dow Chemical Company and its subsidiaries as of December 31, 2001 and 2000, and the related consolidated statements of income, stockholders' equity, comprehensive income and cash flows for each of the three years in the period ended December 31, 2001. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audits. The consolidated financial statements give retroactive effect to the merger of The Dow Chemical Company and Union Carbide Corporation, which has been accounted for as a pooling of interests as described in Note C to the consolidated financial statements. We did not audit the consolidated balance sheet of Union Carbide Corporation as of December 31, 2000, or the related statements of income, stockholders' equity and cash flows of Union Carbide Corporation for the two years in the period ended December 31, 2000, which consolidated statements reflect total assets of \$8,346 million as of December 31, 2000, and total revenues of \$6,526 million and \$5,870 million for the years ended December 31, 2000 and 1999, respectively. Those consolidated statements were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for Union Carbide Corporation for 2000 and 1999, is based solely on the report of such other auditors.

We conducted our audits in accordance with 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 misstatement. 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 and the report of the other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of the other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of The Dow Chemical Company and its subsidiaries at December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Notes A and J to the consolidated financial statements, effective January 1, 2001, The Dow Chemical Company changed its method of accounting for derivative instruments and hedging activities to conform to Statement of Financial Accounting Standards No. 133.

/s/ DELOITTE & TOUCHE LLP

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Deloitte & Touche LLP  
Midland, Michigan  
February 13, 2002

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### Independent Auditors' Report

*To the Stockholders and Board of Directors of Union Carbide Corporation:*

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We have audited the consolidated balance sheet of Union Carbide Corporation and subsidiaries as of December 31, 2000, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2000 (not presented separately herein). These consolidated financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with 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 misstatement. 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 (not presented separately herein) present fairly, in all material respects, the financial position of Union Carbide Corporation and subsidiaries at December 31, 2000, and the results of their operations and their cash flows for each of the years in the two-year period ended December 31, 2000, in conformity with accounting principles generally accepted in the United States of America.

/s/ KPMG LLP

KPMG LLP

Stamford, Connecticut

January 22, 2001, except as to Note 17, which is as of February 6, 2001

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### The Dow Chemical Company and Subsidiaries Consolidated Statements of Income

(In millions, except per share amounts) For the years ended December 31	2001	2000	1999
Net Sales	\$ 27,805	\$ 29,534	\$ 25,859
Cost of sales	23,652	24,131	20,300
Research and development expenses	1,072	1,119	1,075
Selling, general and administrative expenses	1,765	1,825	1,776
Amortization of intangibles	178	139	160
Purchased in-process research and development charges	69	6	6
Special charges			94
Merger-related expenses and restructuring	1,487		
Insurance and finance company operations, pretax income	30	85	150
Equity in earnings of nonconsolidated affiliates	29	354	95
Sundry income net	394	352	329
Earnings before Interest, Income Taxes and Minority Interests	35	3,105	3,022
Interest income	85	146	132
Interest expense and amortization of debt discount	733	665	564
Income (Loss) before Income Taxes and Minority Interests	(613)	2,586	2,590
Provision (Credit) for income taxes	(228)	839	874
Minority interests' share in income	32	72	74
Preferred stock dividends			5

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(In millions, except per share amounts) For the years ended December 31	2001	2000	1999
Income (Loss) before Cumulative Effect of Change in Accounting Principle	(417)	1,675	1,637
Cumulative effect of change in accounting principle	32		(20)
<b>Net Income (Loss) Available for Common Stockholders</b>	<b>\$ (385)</b>	<b>\$ 1,675</b>	<b>\$ 1,617</b>
<b>Share Data</b>			
Earnings (Loss) before cumulative effect of change in accounting principle per common share basic	\$ (0.46)	\$ 1.88	\$ 1.87
Earnings (Loss) per common share basic	\$ (0.43)	\$ 1.88	\$ 1.85
Earnings (Loss) before cumulative effect of change in accounting principle per common share diluted	\$ (0.46)	\$ 1.85	\$ 1.84
Earnings (Loss) per common share diluted	\$ (0.43)	\$ 1.85	\$ 1.82
Common stock dividends declared per share of Dow common stock	\$ 1.295	\$ 1.16	\$ 1.16
Weighted-average common shares outstanding basic	901.8	893.2	874.9
Weighted-average common shares outstanding diluted	901.8	904.5	893.5

See Notes to the Consolidated Financial Statements.

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**The Dow Chemical Company and Subsidiaries  
Consolidated Balance Sheets**

(In millions) At December 31	2001	2000
<b>Assets</b>		
<b>Current Assets</b>		
Cash and cash equivalents	\$ 220	\$ 278
Marketable securities and interest-bearing deposits	44	163
Accounts and notes receivable:		
Trade (net of allowance for doubtful receivables 2001: \$123; 2000: \$103)	2,868	3,655
Other	2,230	2,764
Inventories:		
Finished and work in process	3,569	3,396
Materials and supplies	871	817
Deferred income tax assets current	506	250
<b>Total current assets</b>	<b>10,308</b>	<b>11,323</b>
<b>Investments</b>		
Investment in nonconsolidated affiliates	1,581	2,096
Other investments	1,663	2,528
Noncurrent receivables	802	674
<b>Total investments</b>	<b>4,046</b>	<b>5,298</b>

Property

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(In millions) At December 31	2001	2000
Property	35,890	34,852
Less accumulated depreciation	22,311	21,141
<b>Net property</b>	<b>13,579</b>	<b>13,711</b>
<b>Other Assets</b>		
Goodwill (net of accumulated amortization 2001: \$569; 2000: \$459)	3,130	1,928
Deferred income tax assets noncurrent	2,248	1,968
Deferred charges and other assets	2,204	1,763
<b>Total other assets</b>	<b>7,582</b>	<b>5,659</b>
<b>Total Assets</b>	<b>\$ 35,515</b>	<b>\$ 35,991</b>

See Notes to the Consolidated Financial Statements.

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**The Dow Chemical Company and Subsidiaries  
Consolidated Balance Sheets**

(In millions, except share amounts) At December 31	2001	2000
<b>Liabilities and Stockholders' Equity</b>		
<b>Current Liabilities</b>		
Notes payable	\$ 1,209	\$ 2,519
Long-term debt due within one year	408	318
Accounts payable:		
Trade	2,713	2,975
Other	926	1,594
Income taxes payable	190	258
Deferred income tax liabilities current	236	35
Dividends payable	323	217
Accrued and other current liabilities	2,120	2,257
<b>Total current liabilities</b>	<b>8,125</b>	<b>10,173</b>
<b>Long-Term Debt</b>	<b>9,266</b>	<b>6,613</b>
<b>Other Noncurrent Liabilities</b>		
Deferred income tax liabilities noncurrent	760	1,165
Pension and other postretirement benefits noncurrent	2,475	2,238
Other noncurrent obligations	3,539	3,012
<b>Total other noncurrent liabilities</b>	<b>6,774</b>	<b>6,415</b>
<b>Minority Interest in Subsidiaries</b>	<b>357</b>	<b>450</b>

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(In millions, except share amounts) At December 31

	2001	2000
Preferred Securities of Subsidiaries	1,000	500
<b>Stockholders' Equity</b>		
Common stock (authorized 1,500,000,000 shares of \$2.50 par value each; issued 981,377,562)	2,453	2,453
Additional paid-in capital		
Unearned ESOP shares	(90)	(103)
Retained earnings	11,112	12,675
Accumulated other comprehensive loss	(1,070)	(560)
Treasury stock at cost (shares 2001: 76,540,276; 2000: 84,280,041)	(2,412)	(2,625)
Net stockholders' equity	9,993	11,840
<b>Total Liabilities and Stockholders' Equity</b>	<b>\$ 35,515</b>	<b>\$ 35,991</b>

See Notes to the Consolidated Financial Statements.

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**The Dow Chemical Company and Subsidiaries**  
**Consolidated Statements of Cash Flows**

(In millions) For the years ended December 31

	2001	2000	1999
<b>Operating Activities</b>			
Income (Loss) before cumulative effect of change in accounting principle	\$ (417)	\$ 1,675	\$ 1,637
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	1,815	1,738	1,709
Purchased in-process research and development charges	69	6	6
Provision (Credit) for deferred income tax	(391)	143	260
Undistributed (earnings) losses of nonconsolidated affiliates	25	(222)	37
Minority interests' share in income	32	72	74
Net gain on sales of consolidated companies			(26)
Net (gain) loss on sales of nonconsolidated affiliates	2	(13)	
Net gain on sales of property and businesses	(49)	(102)	(55)
Other net gain	(245)	(340)	(63)
Merger-related expenses and restructuring	906		
Tax benefit nonqualified stock option exercises	39	37	70
Changes in assets and liabilities that provided (used) cash:			
Accounts and notes receivable	1,340	(335)	(133)
Inventories	34	(559)	65
Accounts payable	(586)	429	193
Other assets and liabilities	(785)	(838)	(212)
Cash provided by operating activities	1,789	1,691	3,562
<b>Investing Activities</b>			

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(In millions) For the years ended December 31	2001	2000	1999
Capital expenditures	(1,587)	(1,808)	(2,176)
Proceeds from sales of property and businesses	153	166	128
Acquisitions of businesses, net of cash received	(2,301)	(678)	(441)
Proceeds from sales of consolidated companies			38
Investments in nonconsolidated affiliates	(92)	(186)	(208)
Advances to nonconsolidated affiliates, net of cash received	203	(179)	(24)
Proceeds from sales of nonconsolidated affiliates	181	47	
Purchases of investments	(2,561)	(3,074)	(4,186)
Proceeds from sales of investments	3,330	4,618	3,338
<b>Cash used in investing activities</b>	<b>(2,674)</b>	<b>(1,094)</b>	<b>(3,531)</b>
<b>Financing Activities</b>			
Changes in short-term notes payable	(1,573)	136	(352)
Payments on long-term debt	(259)	(562)	(593)
Proceeds from issuance of long-term debt	3,165	401	1,640
Purchases of treasury stock	(5)	(4)	(480)
Proceeds from sales of common stock	146	150	667
Purchase of subsidiary preferred stock			(102)
Proceeds from issuance of preferred securities of subsidiaries	500		500
Distributions to minority interests	(80)	(74)	(36)
Dividends paid to stockholders	(1,063)	(904)	(891)
<b>Cash provided by (used in) financing activities</b>	<b>831</b>	<b>(857)</b>	<b>353</b>
<b>Effect of Exchange Rate Changes on Cash</b>	<b>(4)</b>	<b>(9)</b>	<b>(9)</b>
<b>Summary</b>			
Increase (Decrease) in cash and cash equivalents	(58)	(269)	375
Cash and cash equivalents at beginning of year	278	547	172
<b>Cash and cash equivalents at end of year</b>	<b>\$ 220</b>	<b>\$ 278</b>	<b>\$ 547</b>

See Notes to the Consolidated Financial Statements.

**The Dow Chemical Company and Subsidiaries  
Consolidated Statements of Stockholders' Equity**

(In millions) For the years ended December 31	2001	2000	1999
<b>Common Stock</b>			
Balance at beginning of year	\$ 2,453	\$ 818	\$ 818
3-for-1 stock split		1,635	
<b>Balance at end of year</b>	<b>2,453</b>	<b>2,453</b>	<b>818</b>



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(In millions) For the years ended December 31	2001	2000	1999
<b>Additional Paid-in Capital</b>			
Balance at beginning of year		165	
3-for-1 stock split		(184)	
Issuance of treasury stock at more than cost			165
Other		19	
Balance at end of year			165
<b>Unearned ESOP Shares</b>			
Balance at beginning of year	(103)	(57)	(69)
Transfer from temporary equity		(64)	
Shares allocated to ESOP participants	13	18	12
Balance at end of year	(90)	(103)	(57)
<b>Retained Earnings</b>			
Balance at beginning of year	12,675	13,357	12,680
Net income (loss) before preferred stock dividends	(385)	1,675	1,622
3-for-1 stock split		(1,451)	
Preferred stock dividends declared			(5)
Common stock dividends declared	(1,162)	(906)	(888)
Other	(16)		(52)
Balance at end of year	11,112	12,675	13,357
<b>Accumulated Other Comprehensive Income (Loss)</b>			
Unrealized Gains on Investments at beginning of year	325	298	137
Unrealized gains (losses)	(319)	27	161
Balance at end of year	6	325	298
<b>Cumulative Translation Adjustments at beginning of year</b>			
Translation adjustments	(148)	(188)	(121)
Balance at end of year	(982)	(834)	(646)
<b>Minimum Pension Liability at beginning of year</b>			
Adjustments	(21)	12	
Balance at end of year	(72)	(51)	(63)
<b>Accumulated Derivative Gain (Loss) at beginning of year</b>			
Cumulative transition adjustment	65		
Net hedging results	(45)		
Reclassification to earnings	(42)		

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(In millions) For the years ended December 31	2001	2000	1999
Balance at end of year	(22)		
Total accumulated other comprehensive loss	(1,070)	(560)	(411)
<b>Treasury Stock</b>			
Balance at beginning of year	(2,625)	(2,932)	(3,100)
Purchases	(5)	(4)	(477)
Sales of treasury shares in open market			284
Issuance to employees and employee plans	218	311	361
Balance at end of year	(2,412)	(2,625)	(2,932)
Net Stockholders' Equity	\$ 9,993	\$ 11,840	\$ 10,940

See Notes to the Consolidated Financial Statements.

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**The Dow Chemical Company and Subsidiaries  
Consolidated Statements of Comprehensive Income**

(In millions) For the years ended December 31	2001	2000	1999
Net Income (Loss) Available for Common Stockholders	\$ (385)	\$ 1,675	\$ 1,617
<b>Other Comprehensive Income (Loss), Net of Tax (tax amounts shown below for 2001, 2000, 1999)</b>			
Unrealized gains (losses) on investments:			
Unrealized holding gains (losses) during the period (less tax of \$(34), \$20, \$127)	(60)	35	213
Less: Reclassification adjustments for net amounts included in net income (loss) (less tax of \$(152), \$(4), \$(31))	(259)	(8)	(52)
Cumulative translation adjustments (less tax of \$(21), \$(33), \$(47))	(148)	(188)	(121)
Minimum pension liability adjustments (less tax of \$(8), \$5, \$0)	(21)	12	
Net loss on cash flow hedging derivative instruments (less tax of \$(13) for 2001)	(22)		
Total other comprehensive income (loss)	(510)	(149)	40
Comprehensive Income (Loss)	\$ (895)	\$ 1,526	\$ 1,657

See Notes to the Consolidated Financial Statements.

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**The Dow Chemical Company and Subsidiaries  
Notes to the Consolidated Financial Statements  
Dollars in millions, except as noted**

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<b>A Summary of Significant Accounting Policies and Accounting Changes</b>		

### Principles of Consolidation and Basis of Presentation

The accompanying consolidated financial statements of The Dow Chemical Company and its subsidiaries ("Dow" or the "Company") include the assets, liabilities, revenues and expenses of all majority-owned subsidiaries over which the Company exercises control and for which control is other than temporary. Intercompany transactions and balances are eliminated in consolidation. Investments in nonconsolidated affiliates (20-50 percent owned companies, joint ventures and partnerships, and majority-owned subsidiaries over which the Company does not exercise control) are accounted for on the equity basis.

The consolidated financial statements give retroactive effect to the merger of the Company and Union Carbide Corporation ("Union Carbide"), which was completed on February 6, 2001, and accounted for as a pooling of interests (see Note C for additional information).

Certain reclassifications of prior years' amounts have been made to conform to the presentation adopted for 2001.

### Use of Estimates in Financial Statement Preparation

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period.

The Company's consolidated financial statements include amounts that are based on management's best estimates and judgments. Actual results could differ from those estimates.

### Foreign Currency Translation

The local currency has been primarily used as the functional currency throughout the world. Translation gains and losses of those operations that use local currency as the functional currency are included in the consolidated balance sheets as "Accumulated other comprehensive income (loss)" ("AOCI"). Where the U.S. dollar is used as the functional currency, foreign currency gains and losses are reflected in income.

### **Environmental Matters**

Accruals for environmental matters are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated, based on current law and existing technologies. These accruals are adjusted periodically as assessment and remediation efforts progress or as additional technical or legal information becomes available. Accruals for environmental liabilities are included in the consolidated balance sheets as "Other noncurrent obligations" at undiscounted amounts. Accruals for related insurance or other third-party recoveries for environmental liabilities are recorded when it is probable that a recovery will be realized and are included in the consolidated balance sheets as "Noncurrent receivables."

Environmental costs are capitalized if the costs extend the life of the property, increase its capacity, and/or mitigate or prevent contamination from future operations. Costs related to environmental contamination treatment and cleanup are charged to expense. Estimated future incremental operations, maintenance and management costs directly related to remediation are accrued when such costs are probable and estimable.

### **Cash and Cash Equivalents**

Cash and cash equivalents include time deposits and readily marketable securities with original maturities of three months or less.

### **Financial Instruments**

The Company calculates the fair value of financial instruments using quoted market prices whenever available. When quoted market prices are not available for various types of financial instruments (such as forwards, options and swaps), the Company uses standard pricing models, which take into account the present value of estimated future cash flows.

The Company utilizes derivative instruments to manage exposures to currency exchange rates, commodity prices and interest rate risk. The fair values of all derivative instruments are recognized as assets or liabilities at the balance sheet date. Changes in the fair value of these instruments are reported in income or AOCI, depending on the use of the derivative and whether it qualifies for hedge accounting treatment.

Gains and losses on derivative instruments qualifying as cash flow hedges are recorded in AOCI, to the extent the hedges are effective, until the underlying transactions are recognized in income. To the extent effective, gains and losses on derivative and non-derivative instruments used as hedges of the Company's net investment in foreign operations are recorded in AOCI as part of the cumulative translation adjustment. The ineffective portions of cash flow hedges and hedges of net investment in foreign operations, if any, are recognized in income immediately.

Gains and losses on derivative instruments designated and qualifying as fair value hedging instruments as well as the offsetting losses and gains on the hedged items are reported in income in the

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same accounting period. Derivative instruments not designated as hedges are marked-to-market at the end of each accounting period with the results included in income.

### **Inventories**

Inventories are stated at the lower of cost or market. The method of determining cost is used consistently from year to year at each subsidiary and varies among last-in, first-out ("LIFO"); first-in, first-out ("FIFO"); and average cost.

### **Property**

Land, buildings and equipment, including property under capital lease agreements, are carried at cost less accumulated depreciation. Depreciation is based on the estimated service lives of depreciable assets and is generally provided using the straight-line method. For most assets capitalized through 1996, the declining balance method was used. Fully depreciated assets are retained in property and depreciation accounts until they are removed from service. In the case of disposals, assets and related depreciation are removed from the accounts, and the net amounts, less proceeds from disposal, are included in income.

The Company evaluates long-lived assets and certain identifiable intangibles for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When it is probable that undiscounted future cash flows will not be

sufficient to recover an asset's carrying amount, the asset is written down to its fair value. Long-lived assets to be disposed of are reported at the lower of carrying amount or fair value less cost to sell.

### **Investments**

Investments in debt and marketable equity securities, including warrants, are classified as either trading, available-for-sale, or held-to-maturity. Investments classified as trading are reported at fair value with unrealized gains and losses included in income. Those classified as available-for-sale are reported at fair value with unrealized gains and losses recorded in AOCI. Those classified as held-to-maturity are recorded at amortized cost. The cost of investments sold is determined by specific identification.

The excess of the cost of investments in subsidiaries over the values assigned to assets and liabilities acquired through June 30, 2001, is shown as goodwill and is amortized on a straight-line basis over its estimated useful life (maximum 40 years) through December 31, 2001. There were no investments made after June 30, 2001, that resulted in the recording of goodwill. Effective January 1, 2002, goodwill will no longer be amortized, but will be subject to the impairment provisions of Statement of Financial Accounting Standards ("SFAS") No. 142, "Goodwill and Other Intangible Assets." See Accounting Changes below for further discussion.

### **Revenue**

Sales are recognized when the revenue is realized or realizable, and has been earned. In general, revenue is recognized as risk and title to the product transfers to the customer, which usually occurs at the time shipment is made; as services are rendered; or in relation to licensee production levels.

### **Income Taxes**

The Company accounts for income taxes using the asset and liability method. Under this method deferred tax assets and liabilities are recognized for the future tax consequences of temporary differences between the carrying amounts and tax bases of assets and liabilities using enacted rates.

Annual tax provisions include amounts considered sufficient to pay assessments that may result from examinations of prior year tax returns; however, the amount ultimately paid upon resolution of issues raised may differ from the amounts accrued. Provision is made for taxes on undistributed earnings of foreign subsidiaries and related companies to the extent that such earnings are not deemed to be permanently invested.

### **Earnings per Common Share**

The calculation of earnings per common share is based on the weighted-average number of the Company's common shares outstanding during the applicable period. Periods prior to 2001 have been adjusted to reflect the effects of the issuance of common shares of the Company in exchange for the common shares of Union Carbide. The calculation for diluted earnings per common share reflects the effect of all dilutive potential common shares that were outstanding during the respective periods.

### **Accounting Changes**

In 1998, the American Institute of Certified Public Accountants ("AICPA") issued Statement of Position ("SOP") 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use," which requires capitalization of certain internal-use computer software costs. SOP 98-1 was adopted by the Company on January 1, 1999. The Company's previous accounting policy was to expense such costs as incurred; therefore, adoption of this statement resulted in a favorable, though immaterial, initial impact on earnings.

In 1998, the AICPA issued SOP 98-5, "Reporting on the Costs of Start-Up Activities," which provides guidance on the financial reporting of start-up costs and organization costs, requiring those costs to be expensed as incurred. The Company's previous policy regarding the treatment of these costs was substantially consistent with SOP 98-5, with the exception of certain nonconsolidated affiliates of Union Carbide, which capitalized the cost of start-up activities. Therefore, adoption of this standard on January 1, 1999, resulted in a charge of \$27 (\$20 after tax) as a cumulative effect of change in accounting principle.

In December 1999, the U.S. Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin ("SAB") 101, "Revenue Recognition in Financial Statements," which summarizes the SEC's views in applying generally accepted accounting principles to revenue

recognition. The Company has determined that SAB 101's revenue recognition guidelines are consistent with the Company's existing revenue recognition policies; therefore, SAB 101 did not have a material impact on the Company's consolidated financial statements.

In May 2000, the Emerging Issues Task Force ("EITF") of the Financial Accounting Standards Board ("FASB") reached a consensus with respect to EITF Issue 00-10, "Accounting for Shipping and Handling Fees and Costs." EITF 00-10 recognized the inconsistencies in practice with regard to the recording of shipping and handling costs incurred by most companies that sell goods. The Company, with the exception of Union Carbide, historically recorded freight and any directly related associated cost of transporting finished product to customers as a reduction of net sales. At the end of 2000, following the guidance of EITF 00-10, the Company reclassified these costs to cost of sales for all periods presented. As a result, reported net sales increased approximately 4 percent, with a corresponding increase in cost of sales.

The FASB issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," in June 1998. SFAS No. 133 requires an entity to recognize all derivatives as either assets or liabilities in the statement of financial position and measure those instruments at fair value. In June 1999, the FASB issued SFAS No. 137, "Accounting for Derivative Instruments and Hedging Activities - Deferral of the Effective Date of FASB Statement No. 133." In June 2000, the FASB issued SFAS No. 138, "Accounting for Certain Derivative Instruments and Certain Hedging Activities," an amendment of

SFAS No. 133. Based on the revised effective date, the Company adopted SFAS No. 133, as amended by SFAS No. 138, on January 1, 2001. See Note J regarding the impact of adoption.

In September 2000, the FASB issued SFAS No. 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." This statement, which replaces SFAS No. 125, revises the standards for accounting for securitizations and other transfers of financial assets and collateral, and requires certain disclosures, but it carries over most of the provisions of SFAS No. 125 without reconsideration. SFAS No. 140 was effective for transfers and servicing of financial assets and extinguishments of liabilities occurring after March 31, 2001. It was effective for recognition and reclassifications of collateral and for disclosures relating to securitization transactions and collateral for fiscal years ending after December 15, 2000. The adoption of SFAS No. 140 did not have a material impact on the Company's consolidated financial statements. See Note Q regarding sales of certain qualifying accounts receivables.

In July 2001, the FASB issued SFAS No. 141, "Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets." These statements replace Accounting Principles Board ("APB") Opinion No. 16, "Business Combinations," and APB Opinion No. 17, "Intangible Assets," respectively. Under SFAS No. 141 all business combinations initiated after June 30, 2001, are accounted for using only the purchase method. SFAS No. 142 is effective for fiscal years beginning after December 15, 2001. Under this statement, goodwill will not be amortized, but will be subject to impairment testing, with the exception of goodwill arising from investments in nonconsolidated affiliates, which will continue to be subject to the impairment provisions of APB No. 18, "The Equity Method of Accounting for Investments in Common Stock." Amortization of existing goodwill (\$130 in 2001, \$108 in 2000 and \$130 in 1999) will cease upon adoption of SFAS No. 142 on January 1, 2002. Net negative goodwill of \$89 associated with the acquisition of BSL (see Note C) will be written off and included in the cumulative effect of change in accounting principle in the first quarter of 2002. The impact of the Company's goodwill impairment test will result in a charge of approximately \$21, which will also be included in the cumulative effect of change in accounting principle in the first quarter of 2002.

In August 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations," which requires an entity to record the fair value of a liability for an asset retirement obligation in the period in which it is incurred and a corresponding increase in the related long-lived asset. The liability is adjusted to its present value each period and the asset is depreciated over its useful life. A gain or loss may be incurred upon settlement of the liability. SFAS No. 143 is effective for fiscal years beginning after June 15, 2002. The Company is currently assessing the impact of adopting this statement.

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." This statement replaces SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed of," and provisions of APB Opinion No. 30, "Reporting the Results of Operations - Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions" for the disposal of segments of a business. The statement creates one accounting model, based on the framework established in SFAS No. 121, to be applied to all long-lived assets including discontinued operations. SFAS No. 144 is effective for fiscal years beginning after December 15, 2001. The Company determined that its current accounting policy for the impairment of long-lived assets is consistent with SFAS No. 144.

## **B Purchased In-Process Research and Development, Special Charges, and Merger-Related Expenses and Restructuring**

### **Purchased In-Process Research and Development**

Purchased in-process research and development ("IPR&D") represents the value assigned in a purchase business combination to research and development projects of the acquired business that had commenced but had not yet been completed at the date of acquisition and which have no alternative future use. In accordance with SFAS No. 2, "Accounting for Research and Development Costs," as clarified by FASB Interpretation No. 4, amounts assigned to IPR&D meeting the above-stated criteria must be charged to expense as part of the allocation of the purchase price of the business combination.

The method used to determine the purchase price allocations for IPR&D for the acquisitions listed below was an income or cash flow method. The calculations were based on estimates of operating earnings, capital charges (representing the effect of capital expenditures), trade name royalties, charges for core technology, and working capital requirements to support the cash flows attributed to the technologies. The after-tax cash flows were bifurcated to reflect the stage of development of each technology. Discount rates reflecting the stage of development and the risk associated with each technology were used to value IPR&D. The Company has substantial experience in research and development projects for new products, which enables it to establish realistic time frames for the completion of such projects; therefore, the Company believes there is limited risk that the projects described below will not be concluded within reasonable proximity to the expected completion dates.

Dow completed its acquisition of Mycogen in 1998. In allocating the purchase price for Mycogen and its related acquisitions of several small seed companies, the Company recorded a pretax IPR&D charge of \$79 against the Agricultural Products segment in 1998. Projects associated with the technology acquired included Bt technology, an input trait used to protect crops from insect pests, various biotechnology projects to enhance crop quality or output traits, and germplasm development. 2000 activity included the abandonment of three projects and revisions to planned future spending on active projects. Expenditures related to these projects were \$16 in 2001, \$8 in 2000 and \$4 in 1999. At year-end 2001, the remaining projects ranged from 11 percent to 67 percent complete, with expected completion in years 2002 through 2008 at an estimated additional cost of \$56.

In 1998, the Company completed the appraisal of the technology acquired with the purchase of Eli Lilly and Company's 40 percent interest in DowElanco and recorded a pretax IPR&D charge of \$220 in the Agricultural Products segment. Projects associated with the technology included naturally derived insecticides, herbicides and fungicides, and various biotechnology projects to enhance crops and to protect them from disease and pests. 2000 activity included the abandonment of two projects and revisions to planned future spending on active projects. Expenditures related to these projects were \$5 in 2001 and 2000, and \$4 in 1999. At year-end 2001, the remaining projects ranged from 22 percent to 74 percent complete, with expected completion in years 2006 through 2009 at an estimated additional cost of \$82.

In 1999, the Company completed the appraisal of the technology acquired with the purchase of ANGUS Chemical (see Note C) and recorded a pretax IPR&D charge of \$6 as part of the Performance Chemicals segment. Projects associated with technology acquired are expected to improve profitability and create new growth opportunities in the nitroparaffin-based business. Projects range from 3 percent to 100 percent complete.

In 2000, the Company completed the appraisal of the technology acquired with the purchase of Flexible Products (see Note C) and recorded a pretax IPR&D charge of \$6 in the Performance Plastics segment. Projects associated with technology acquired are expected to improve profitability and create new growth opportunities in the Polyurethanes formulations-based business. Projects range from 50 percent to 100 percent complete.

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In 2001, the Company completed the appraisal of the technology acquired with the purchase of Rohm and Haas Company's agricultural chemicals business (see Note C) and recorded a pretax IPR&D charge of \$69 in the Agricultural Products segment. Projects associated with technology acquired are expected to create new growth opportunities for fungicides. When acquired, projects were approximately 5 percent complete, with expected completion in 2007 at an estimated additional cost of \$39.

### **Special Charges**

In 1999, a special charge of \$94 was recorded for a cost reduction and business restructuring program in the Agricultural Products segment. The program, which was announced in November 1999, impacted operations in the United States, Europe, Middle East/Africa and Latin

America. The charge included severance of \$51 for approximately 700 employees, inventory write-offs of \$17 and asset write-offs of \$26. During 2000, \$45 of the severance reserve was used to reduce headcount by 690 individuals, leaving a balance of \$6. Additionally, seeds inventory was written off, fully utilizing the inventory reserve. The remaining balance at December 31, 2000, for additional asset write-offs and accrued demolition costs related to the plan was \$20. At December 31, 2001, the program was substantially complete.

### Merger-Related Expenses and Restructuring

On March 29, 2001, Dow's management made certain decisions relative to employment levels, duplicate assets and facilities and excess capacity resulting from the Union Carbide merger. These decisions were based on management's assessment of the actions necessary to achieve synergies as a result of the merger. The economic effects of these decisions, combined with merger-related transaction costs and certain asset impairments, resulted in a pretax special charge in the first quarter of 2001 of \$1,384, which was included in Unallocated and Other for segment reporting purposes.

The special charge included \$643 for employee-related costs, which consisted predominantly of provisions for employee severance, change of control obligations, medical and retirement benefits, and outplacement services. The Company's integration plans included a workforce reduction of approximately 4,500 people, primarily from Union Carbide's administrative, marketing, purchasing, research and development, and manufacturing workforce. The charge for severance was based upon the severance plan provisions communicated to employees. The Company expects that approximately 66 percent of the employee-related costs will be expended in cash within the first two years following the merger, though the timing of severance payments is dependent upon employee elections. Expenditures with respect to employee-related costs associated with pension and postretirement benefit plans will occur over a much more extended period that is not currently determinable. During the fourth quarter of 2001, a review of the Company's integration plans resulted in a revision to the estimated workforce reduction, as actual reductions had exceeded the original plans. Consequently, the severance provision was increased \$56 for an additional workforce reduction of approximately 600 people. As of December 31, 2001, severance of \$333 had been paid to approximately 3,100 former employees.

The special charge included \$122 for transaction costs, which consisted primarily of investment banking, legal and accounting fees. All of these costs had been paid at March 31, 2001.

The special charge included \$619 for the write-down of duplicate assets and facilities directly related to the merger, the loss on divestitures required to obtain regulatory approval for the merger, asset impairments and lease abandonment reserves. Duplicate assets consisted principally of capitalized software costs, information technology equipment, and research and development facilities and equipment, all of which were written off during the first quarter. The fair values of the impaired assets, which include production facilities and transportation equipment, were determined based on discounted

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cash flows and an appraisal, respectively. These components of the special charge will require limited future cash outlays, and will result in a decrease in annual depreciation of approximately \$62. In November 2001, the decision to close a research and development facility in Bound Brook, New Jersey, was reversed, in light of difficult economic conditions; the facility will now remain open until at least 2005. Consequently, \$55 of the special charge was reversed during the fourth quarter. At December 31, 2001, \$77 of the reserve remained for the abandonment of leased facilities and demolition costs.

In addition to the special charge, one-time merger and integration costs totaled \$115 in 2001.

The following table summarizes the activity in the special charge reserve for 2001:

	<i>1st Quarter 2001 Special Charge</i>	<i>Adjustments to Reserve</i>	<i>Charges Against Reserve</i>	<i>Balance at Year-end</i>
Labor-related costs	\$ 643	\$ 43	\$ (333)	\$ 353
Transaction costs	122		(122)	
Write-down of duplicate assets and facilities	619	(55)	(487)	77
One-time merger and integration costs		115	(115)	
<b>Total</b>	<b>\$ 1,384</b>	<b>\$ 103</b>	<b>\$ (1,057)</b>	<b>\$ 430</b>

### C Acquisitions and Divestitures



**Union Carbide Corporation Merger**

In August 1999, The Dow Chemical Company and Union Carbide announced a definitive merger agreement for a tax-free, stock-for-stock transaction. Under the agreement, Union Carbide stockholders received 1.611 shares of Dow stock (on a post-split basis) for each share of Union Carbide stock they owned, for a total of approximately 219 million shares. Based upon Dow's closing price of \$124<sup>11/16</sup> (pre-split) on August 3, 1999, the transaction was valued at \$66.96 per Union Carbide share, or \$11.6 billion in aggregate including the assumption of \$2.3 billion of net debt. According to the agreement, the merger was subject to certain conditions, including approval by Union Carbide stockholders and review by antitrust regulatory authorities in the United States, Europe and Canada. Union Carbide stockholders approved the merger on December 1, 1999. On May 3, 2000, the European Commission approved the merger subject to certain conditions. On February 6, 2001, after receiving clearance from the U.S. Federal Trade Commission, the Canadian Competition Bureau and other jurisdictions around the world, Union Carbide merged with a subsidiary of The Dow Chemical Company, and Union Carbide became a wholly owned subsidiary of Dow. As part of the regulatory approval process, the Company agreed to:

Divest certain European polyethylene assets. *(The sale of Union Carbide's 50 percent ownership in Polimeri Europa S.r.l. to EniChem was completed in April 2001.)*

Divest and license certain polyethylene gas-phase technology globally. *(Completed in the first quarter of 2001.)*

Contribute the UNIPOL polyethylene process technology licensing and polyethylene conventional catalyst businesses of Union Carbide to Univation Technologies LLC. *(Occurred simultaneously with the merger.)*

Divest Dow's worldwide ethyleneamines business (with the exception of Dow's facility in Terneuzen, The Netherlands). *(Business was sold to Huntsman International, LLC in the first quarter of 2001.)*

Divest Dow's worldwide ethanolamines business. *(Business was sold to INEOS plc in the first quarter of 2001.)*

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Divest the North American GAS/SPEC gas treating business. *(Business was sold to INEOS plc in the first quarter of 2001.)*

The Union Carbide merger was accounted for as a pooling of interests. Accordingly, the consolidated financial statements give retroactive effect to the merger and include the combined accounts of Dow and Union Carbide for all periods presented. See Note B regarding a special charge for merger-related expenses and restructuring recorded during 2001.

The following table shows the historical results of Dow and Union Carbide for the periods prior to the consummation of the merger:

	<u>2000</u>	<u>1999</u>
<b>Net Sales:</b>		
Dow	\$ 23,008	\$ 19,989
Union Carbide	6,526	5,870
	<u>          </u>	<u>          </u>
Total	\$ 29,534	\$ 25,859
	<u>          </u>	<u>          </u>
<b>Net Income:</b>		
Dow	\$ 1,513	\$ 1,326
Union Carbide	162	291
	<u>          </u>	<u>          </u>
Total	\$ 1,675	\$ 1,617

<i>2000</i>	<i>1999</i>
_____	_____
_____	_____

### Other Significant Acquisitions and Divestitures

In April 1995, the Company signed an agreement with Bundesanstalt für vereinigungsbedingte Sonderaufgaben ("BvS") for the privatization of three state-owned chemical companies in eastern Germany, Buna Sow Leuna Olefinverbund ("BSL"). Economic transfer of business operations to the Company, through the privatization agreement and various service agreements, occurred in June 1995, and the Company began a reconstruction program of the sites. In September 1997, the Company acquired 80 percent ownership in BSL for an investment of \$174; BvS maintained 20 percent ownership. The Company had a call option and BvS a put option for the remaining 20 percent of BSL after the reconstruction period. In May 2000, the Company announced the completion of the reconstruction program and, for an additional investment of \$156, acquired the remaining 20 percent of BSL. On June 1, 2000, BSL became a wholly owned subsidiary of the Company and, beginning on that date, the financial results of BSL are fully consolidated.

BvS provided certain incentives during the reconstruction period to cover portions of the reconstruction program and retained environmental cleanup obligations for existing facilities. Incentives related to property construction reduced the cost basis of such property. Incentives related to expenses during the reconstruction period were recognized as such expenses were incurred. During the reconstruction period, the Company included the financial results of BSL as a nonconsolidated affiliate.

In October 1999, the Company acquired CanStates Holdings, Inc. and its subsidiary, ANGUS Chemical Company, from TransCanada PipeLines Limited for approximately \$350. ANGUS Chemical is a global leader in the manufacture and marketing of specialty nitroparaffins and their derivatives, which are sold into over 40 industries.

In February 2000, the Company acquired Flexible Products Company of Marietta, Georgia, for approximately \$160. Flexible Products Company was one of the largest polyurethane systems suppliers in North America and a leader in custom polyurethane foam formulations and dispensing technology.

In December 2000, the Company sold its 32.5 percent ownership interest in the Cochin pipeline system to NOVA Chemicals Corp. for \$119, resulting in a pretax gain of \$98. The Company initially announced its agreement to sell its interest in the pipeline to a unit of Williams' energy services

business in August 2000. In October 2000, NOVA Chemicals Corp., one of the owners of Cochin, exercised its right of first refusal as provided in the contractual agreements among the Cochin owners.

In January 2001, the Company acquired the 50 percent interest in Gurit-Essex AG that it did not previously own from Gurit-Heberlein AG for approximately \$390. Gurit-Essex AG is the largest European supplier of automotive adhesives, sealants and body engineered systems for the automotive OEM and aftermarket. The acquisition has globalized Dow Automotive's product availability and doubled the Company's adhesives, sealants and body engineered systems business.

On February 9, 2001, Dow announced it had reached an agreement with EniChem to acquire its polyurethanes business, which had annual sales of approximately \$500. The acquisition, which strengthens Dow's polyurethanes portfolio by enhancing its European presence, was completed in April 2001 for a net cash cost of approximately \$80. Under the terms of the agreement, Dow divested Union Carbide's 50 percent interest in Polimeri Europa S.r.l. to EniChem in order to satisfy the European Commission's conditions for approval of the merger. Allocation of the purchase price to the assets acquired and liabilities assumed has not been completed for this acquisition. Final determination of the fair values to be assigned may result in adjustments to the preliminary values assigned at the date of acquisition.

On March 8, 2001, Dow announced it had reached an agreement to acquire Rohm and Haas Company's agricultural chemicals business, including working capital, for approximately \$1 billion. After receiving regulatory approval, the Company announced completion of the acquisition on June 1, 2001. During the third quarter of 2001, the Company recorded a pretax charge of \$69 for IPR&D costs as part of the allocation of the purchase price (see Note B). Allocation of the purchase price to the assets acquired and liabilities assumed has not been completed for this acquisition. Final determination of the fair values to be assigned may result in adjustments to the preliminary values assigned at the date of acquisition, and could principally impact goodwill and property.

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On March 29, 2001, Dow announced it was making a tender offer to acquire 100 percent of the outstanding shares of Ascot Plc, a publicly traded U.K. company with annual chemical sales of approximately \$335. The European Commission granted regulatory approval of the acquisition on May 11, 2001, and the Company declared its offer to acquire Ascot wholly unconditional on June 1, 2001. The acquisition is valued at approximately \$450. Dow has integrated the Fine Chemicals and Specialty Chemicals businesses of Ascot into Dow's Performance Chemicals' business group. Allocation of the purchase price to the assets acquired and liabilities assumed has not been completed for this acquisition. Final determination of the fair values to be assigned may result in adjustments to the preliminary values assigned at the date of acquisition.

See Note B regarding certain charges recorded related to acquisitions and divestitures.

### D Income Taxes

Operating loss carryforwards at December 31, 2001, amounted to \$4,765 compared with \$3,541 at the end of 2000. Of the operating loss carryforwards, \$276 is subject to expiration in the years 2002 through 2006. The remaining balances expire in years beyond 2006 or have an indefinite carryforward period. Tax credit carryforwards at December 31, 2001, amounted to \$508, of which \$387 is subject to expiration in the years 2002 through 2006. The remaining tax credit carryforwards expire in years beyond 2006.

Undistributed earnings of foreign subsidiaries and related companies which are deemed to be permanently invested amounted to \$5,202 at December 31, 2001, \$4,297 at December 31, 2000, and \$3,897 at December 31, 1999. It is not practicable to calculate the unrecognized deferred tax liability on those earnings.

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The Company's valuation allowance of \$264 at December 31, 2000, related to BSL (see Note C). Upon consolidation of BSL on June 1, 2000, the valuation allowance was \$495. During 2000, this allowance was reduced \$231. The valuation allowance reduces BSL's deferred tax asset in recognition of the uncertainty regarding full realization of the tax benefit. BSL's deferred tax asset is a result of tax net operating losses during the five-year reconstruction period and the excess of the tax basis over the financial reporting basis of its fixed assets. The Company's valuation allowance was \$295 at December 31, 2001, up \$31 from year-end 2000 primarily due to the addition of new valuation allowances for operations in Argentina, Brazil and South Africa.

In 2000, Germany enacted a lower corporate income tax rate effective January 1, 2001. This change reduced the value of the deferred tax asset of BSL by \$201 and resulted in a \$9 decrease in the provision for deferred income tax for the other Dow subsidiaries in Germany.

#### *Domestic and Foreign Components of Income (Loss) before Income Taxes and Minority Interests*

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Domestic	\$ (1,214)	\$ 861	\$ 1,248
Foreign	601	1,725	1,342
<b>Total</b>	<b>\$ (613)</b>	<b>\$ 2,586</b>	<b>\$ 2,590</b>

#### *Reconciliation to U.S. Statutory Rate*

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Taxes at U.S. statutory rate	\$ (215)	\$ 905	\$ 906
Amortization of nondeductible intangibles	37	30	35
Foreign rates other than 35%(1)	32	(33)	(1)
U.S. tax effect of foreign earnings and dividends	2	(13)	(31)
U.S. business and R&D credits	(45)	(21)	(23)
Other net	(39)	(29)	(12)

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	<u>2001</u>	<u>2000</u>	<u>1999</u>
Total tax provision (credit)	\$ (228)	\$ 839	\$ 874
Effective tax rate	37.2%	32.4%	33.7%

(1) 2000 includes the effects of changes in German tax rates on deferred tax balances and a reduction in the BSL valuation allowance.

*Provision (Credit) for Income Taxes*

	<u>2001</u>			<u>2000</u>			<u>1999</u>		
	<u>Current</u>	<u>Deferred</u>	<u>Total</u>	<u>Current</u>	<u>Deferred</u>	<u>Total</u>	<u>Current</u>	<u>Deferred</u>	<u>Total</u>
Federal	\$ (111)	\$ (431)	\$ (542)	\$ 179	\$ 161	\$ 340	\$ 234	\$ 143	\$ 377
State and local	31	(24)	7	23	19	42	14	30	44
Foreign	243	64	307	494	(37)	457	366	87	453
Total	\$ 163	\$ (391)	\$ (228)	\$ 696	\$ 143	\$ 839	\$ 614	\$ 260	\$ 874

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*Deferred Tax Balances at December 31*

	<u>2001</u>	<u>2000</u>
Property	\$ (1,168)	\$ (1,318)
Tax loss and credit carryforwards	2,171	1,566
Long-term debt	(68)	61
Postretirement benefit obligations	728	669
Other accruals and reserves	(10)	314
Investments	372	49
Inventory	134	179
Other net	(106)	(238)
Subtotal	\$ 2,053	\$ 1,282
Valuation allowance	(295)	(264)
Total	\$ 1,758	\$ 1,018

**E Inventories**

The reserves required to adjust inventories from the first-in, first-out ("FIFO") basis to the last-in, first-out ("LIFO") basis amounted to a decrease of \$146 at December 31, 2001, and a decrease of \$682 at December 31, 2000. The inventories that were valued on a LIFO basis,

principally hydrocarbon and U.S. chemicals and plastics product inventories, represented 36 percent of the total inventories at December 31, 2001, and 38 percent of the total inventories at December 31, 2000.

A reduction of certain inventories resulted in the liquidation of some quantities of LIFO inventory, which increased pretax income \$19 in 2001, \$67 in 2000 and \$51 in 1999.

**F Significant Nonconsolidated Affiliates and Related Company Transactions**

In May 1995, Dow Corning Corporation ("Dow Corning"), in which the Company is a 50 percent shareholder, filed for protection under Chapter 11 of the U.S. Bankruptcy Code (see Note P). As a result, the Company fully reserved its investment in Dow Corning and reserved its 50 percent share of equity earnings from that time through the third quarter of 2000.

The Company's investments in related companies accounted for by the equity method ("nonconsolidated affiliates") were \$1,581 at December 31, 2001, and \$2,096 at December 31, 2000. These amounts approximate the Company's proportionate share of the underlying net assets of the companies accounted for by the equity method. Differences between the Company's investments in nonconsolidated affiliates and its share of the investees' net assets (exclusive of Dow Corning) are amortized over the estimated useful lives.

The summarized financial information below represents the combined accounts (at 100 percent) of the principal nonconsolidated affiliates: BSL; Compañía Mega S.A.; Dow Corning; DuPont Dow Elastomers L.L.C.; EQUATE Petrochemical Company K.S.C.; Gurit-Essex AG; Nippon Unicar Company Limited; Petromont and Company, Limited Partnership; Polimeri Europa S.r.l.; Total Raffinaderij Nederland N.V.; and UOP LLC. The Company's investment in these companies was \$1,062 at December 31, 2001, and \$1,338 at December 31, 2000, and its equity in their earnings was \$84 in 2001, \$390 in 2000 and \$182 in 1999, after reserving the earnings related to Dow Corning through the third quarter of 2000.

On June 1, 2000, BSL became a wholly owned subsidiary of the Company and, beginning on that date, the financial results of BSL are fully consolidated (see Note C). As a result, the summarized balance sheet information below does not include BSL's assets and liabilities. The summarized income

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statement information for 2000 includes BSL's sales, gross profit and net income from January 1, 2000, through May 31, 2000.

On January 10, 2001, Gurit-Essex AG became a wholly owned subsidiary of the Company and, beginning on that date, the financial results of Gurit-Essex AG are fully consolidated (see Note C). In April 2001, in order to satisfy the European Commission's condition for approval of the Union Carbide merger, the Company divested its 50 percent interest in Polimeri Europa S.r.l. to EniChem S.p.A. The summarized balance sheet and income statement information below for 2001 does not include Gurit-Essex AG or Polimeri Europa S.r.l. (see Note C).

*Summarized Balance Sheet Information at December 31*

	<i>2001</i>	<i>2000</i>
Current assets	\$ 3,473	\$ 4,062
Noncurrent assets	6,502	8,770
<b>Total assets</b>	<b>\$ 9,975</b>	<b>\$ 12,832</b>
Current liabilities	\$ 1,925	\$ 2,293
Noncurrent liabilities	5,439	7,429
<b>Total liabilities</b>	<b>\$ 7,364</b>	<b>\$ 9,722</b>

*Summarized Income Statement Information*

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	<u>2001</u>	<u>2000</u>	<u>1999</u>
Sales	\$ 5,575	\$ 8,737	\$ 7,857
Gross profit	1,405	2,140	1,482
Net income	100	673	381

Dividends received from related companies were \$54 in 2001, \$132 in 2000 and \$153 in 1999.

The Company has service agreements with some of these entities, including contracts to manage the operations of manufacturing sites and the construction of new facilities; licensing and technology agreements; and marketing, sales, purchase and lease agreements. Transactions with related companies and balances due to related companies were not material to the consolidated financial statements.

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## G Property

*Property at December 31*

	<i>Estimated Useful Lives (Years)</i>	<u>2001</u>	<u>2000</u>
Land		\$ 445	\$ 425
Land and waterway improvements	15-25	994	1,009
Buildings	5-55	3,009	2,724
Machinery and equipment	3-20	26,221	24,688
Utility and supply lines	5-20	1,584	2,754
Other	3-30	2,351	2,267
Construction in progress		1,286	985
Total		<u>\$ 35,890</u>	<u>\$ 34,852</u>

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Depreciation expense	\$ 1,595	\$ 1,554	\$ 1,516
Manufacturing maintenance and repair costs	1,015	1,027	889
Capitalized interest	54	98	96

## H Leased Property

The Company routinely leases premises for use as sales and administrative offices, warehouses and tanks for product storage, motor vehicles, railcars, computers, office machines, and equipment under operating leases. In addition, the Company leases gas turbines at two U.S. locations, aircraft in the U.S., ethylene plants in Argentina and Canada, and a polyethylene plant in Argentina. At the termination of the leases, the Company has the option to purchase these plants and certain other leased equipment and buildings.

Rental expenses under operating leases, net of sublease rental income, were \$469 for 2001, \$431 for 2000 and \$435 for 1999.

*Minimum Operating Lease Commitments at December 31, 2001*

2002	\$ 270
2003	226
2004	189
2005	162

*Minimum Operating Lease Commitments at December 31, 2001*

2006	115
2007 and thereafter	871
<b>Total</b>	<b>\$ 1,833</b>

**I Notes Payable, Long-Term Debt and Available Credit Facilities**

Notes payable consisted primarily of obligations due to banks with a variety of interest rates and maturities.

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*Notes Payable at December 31*

	<u>2001</u>	<u>2000</u>
Commercial paper	\$ 205	\$ 1,394
Other notes payable	1,004	1,125
<b>Total</b>	<b>\$ 1,209</b>	<b>\$ 2,519</b>
Year-end average interest rates (1)	4.07%	6.88%

(1)

Excluding the effects of short-term borrowings in highly inflationary countries.

*Long-Term Debt at December 31*

	<u>2001</u> <u>Average</u> <u>Rate</u>	<u>2001</u>	<u>2000</u> <u>Average</u> <u>Rate</u>	<u>2000</u>
<b>Promissory notes and debentures:</b>				
Final maturity 2002	6.95%	\$ 348	6.95%	\$ 346
Final maturity 2003	6.62%	523	6.62%	523
Final maturity 2004	5.25%	1,000		
Final maturity 2005	7.00%	298	7.00%	300
Final maturity 2006	8.63%	188	8.63%	188
Final maturity 2007 and thereafter (1)	7.12%	4,756	7.60%	3,427
<b>Foreign bonds:</b>				
Final maturity 2001, Japanese yen			6.38%	218
Final maturity 2003, Euro	5.00%	133	5.00%	139
Final maturity 2006, Japanese yen	0.71%	228		
<b>Other facilities:</b>				

	<i>2001 Average Rate</i>	<i>2001</i>	<i>2000 Average Rate</i>	<i>2000</i>
U.S. dollar loans various rates and maturities		65		153
Foreign currency loans various rates and maturities		66		91
Dow ESOP, final maturity 2004	9.42%	42	9.42%	53
Medium-term notes, varying maturities through 2022		292		303
Foreign medium-term notes, final maturity 2006, Euro	5.00%	523		
Pollution control/industrial revenue bonds, varying maturities through 2031		1,247		1,203
Unexpended construction funds				(10)
Capital lease obligations		46		76
Unamortized debt discount		(81)		(79)
Long-term debt due within one year		(408)		(318)
<b>Total</b>	<b>6.21% \$</b>	<b>9,266</b>	<b>7.00% \$</b>	<b>6,613</b>

(1) Holders of \$250 of debentures due in 2025 may request redemption on June 1, 2005.

*Annual Installments on Long-Term Debt for the Next Five Years*

2002	\$ 408
2003	774
2004	1,109
2005	399
2006	994

The Company had unused and available credit facilities at December 31, 2001, with various U.S. and foreign banks totaling \$3.1 billion. These credit facilities require the payment of commitment fees. Additional unused credit facilities totaling \$1.0 billion were available for use by foreign subsidiaries. These facilities are available in support of commercial paper borrowings and working capital requirements.

**J Financial Instruments**

**Investments**

The Company's investments in marketable securities are primarily classified as available-for-sale. Maturities for approximately 30 percent of the debt securities were less than five years at December 31, 2001.

*Investing Results*

	<i>2001</i>	<i>2000</i>	<i>1999</i>
Proceeds from sales of available-for-sale securities	\$ 2,900	\$ 4,231	\$ 3,271
Gross realized gains	410	343	159
Gross realized losses	(157)	(163)	(104)

**Risk Management**



The Company's risk management program for interest rate, foreign currency and commodity risks is based on fundamental, mathematical and technical models that take into account the implicit cost of hedging. Risks created by derivative instruments and the mark-to-market valuations of positions are strictly monitored at all times. The Company uses value at risk and stress tests to monitor risk. Credit risk arising from these contracts is not significant because the counterparties to these contracts are major international financial institutions and the Company does not anticipate any such losses. The net cash requirements arising from risk management activities are not expected to be material. The Company reviews its overall financial strategies and impacts from using derivatives in its risk management program with the Board of Directors' Finance Committee and revises its strategies as market conditions dictate.

The Company minimizes concentrations of credit risk through its global orientation in diverse businesses with a large number of diverse customers and suppliers. No significant concentration of credit risk existed at December 31, 2001.

### Interest Rate Risk Management

The Company enters into various interest rate contracts with the objective of lowering funding costs or altering interest rate exposures related to fixed and variable rate obligations. In these contracts, the Company agrees with other parties to exchange, at specified intervals, the difference between fixed and floating interest amounts calculated on an agreed-upon notional principal amount.

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The notional principal amounts on all types of interest derivative contracts at December 31, 2001, totaled \$3,522 with a weighted-average remaining life of 4.6 years. At December 31, 2000, the notional principal amounts totaled \$1,052 with a weighted-average remaining life of 6.8 years.

#### Interest Derivatives at December 31, 2001

	<u>Notional Amount</u>	<u>Maturities</u>	<u>Weighted-average Rate</u>	
			<u>Receive</u>	<u>Pay</u>
Receive fixed hedge	\$ 1,113	2002-2029	4.9%	3.6%
Receive floating hedge	550	2004-2009	2.1%	6.1%
Other	1,859	2002-2006		

#### Interest Derivatives at December 31, 2000

	<u>Notional Amount</u>	<u>Maturities</u>	<u>Weighted-average Rate</u>	
			<u>Receive</u>	<u>Pay</u>
Receive fixed hedge	\$ 700	2002-2022	7.3%	6.8%
Receive floating hedge	190	2002-2004	6.2%	6.8%
Other	162	2001-2003		

### Foreign Currency Risk Management

The Company's global operations require active participation in foreign exchange markets. The Company enters into foreign exchange forward contracts and options to hedge various currency exposures or create desired exposures. Exposures primarily relate to assets and liabilities and bonds denominated in foreign currencies, as well as economic exposure, which is derived from the risk that currency fluctuations could affect the dollar value of future cash flows related to operating activities. The primary business objective of the activity is to optimize the U.S. dollar value of the Company's assets, liabilities and future cash flows with respect to exchange rate fluctuations. Assets and liabilities denominated in the same foreign currency are netted, and only the net exposure is hedged.

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The Company had forward contracts and options to buy, sell or exchange foreign currencies with a U.S. dollar equivalent of \$5,741 at December 31, 2001, and \$11,148 at December 31, 2000. These contracts and options had various expiration dates, primarily in the first quarter of the next year.

**Commodity Risk Management**

The Company has exposure to the prices of commodities in its procurement of certain raw materials. The primary purpose of commodity hedging activities is to manage the volatility associated with these forecasted inventory purchases. The Company had futures contracts, options and swaps to buy, sell or exchange commodities. Open futures contracts at December 31, 2001, had notional amounts of 150,000 million Btu of natural gas with a weighted-average settlement price of \$3.44 per million Btu. These contracts had various expiration dates in 2002. Combination options for natural gas at December 31, 2001, had a notional amount of 82,000,000 million Btu and weighted-average strike prices per million Btu as follows: long call (\$3.54), short call (\$4.70) and short put (\$2.60). These options had various expiration dates in 2002 through 2004.

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*Commodity Derivatives at December 31, 2001*

Notional amounts in million Btu	Notional Amount	Maturities	Weighted-average Price	
			Receive	Pay
Natural gas hedges:				
Receive fixed	27,400,000	2002-2003	\$ 2.56	\$ 2.78
Receive floating	27,000,000	2002-2003	2.78	2.69
Other	18,240,000	2002	2.29	2.25

The Company also had swaps for feedstocks and fuel oil at December 31, 2001, which were not significant.

*Fair Value of Financial Instruments at December 31*

	2001				2000			
	Cost	Gain	Loss	Fair Value	Cost	Gain	Loss	Fair Value
Marketable securities:								
Debt securities	\$ 952	\$ 18	\$ (12)	\$ 958	\$ 1,048	\$ 35	\$ (6)	\$ 1,077
Equity securities	630	47	(35)	642	924	546	(61)	1,409
Other	5			5	119			119
<b>Total</b>	<b>\$ 1,587</b>	<b>\$ 65</b>	<b>\$ (47)</b>	<b>\$ 1,605</b>	<b>\$ 2,091</b>	<b>\$ 581</b>	<b>\$ (67)</b>	<b>\$ 2,605</b>
Long-term debt including debt due within one year (1)								
	\$ (9,674)	\$ 7	\$ (516)	\$ (10,183)	\$ (6,931)	\$ 16	\$ (235)	\$ (7,150)
Derivatives relating to:								
Foreign currency		\$ 154	\$ (117)	\$ 37		\$ 445	\$ (595)	\$ (150)
Interest rates		27	(34)	(7)		32	(7)	25
Commodities (2)		4	(29)	(25)				

(1) Cost in 2001 includes fair value adjustments per SFAS No. 133 of \$22.

- (2) Prior to the adoption of SFAS No. 133, commodity contracts were not reported in the consolidated balance sheets.

Cost approximates fair value for all other financial instruments.

#### **Accounting for Derivative Instruments and Hedging Activities**

Effective January 1, 2001, the Company adopted SFAS No. 133, as amended by SFAS No. 137 and SFAS No. 138, and as interpreted by the FASB and the Derivatives Implementation Group through "Statement 133 Implementation Issues." The adoption of SFAS No. 133 resulted in the Company recording a transition adjustment gain of \$32 (net of related income tax of \$19) in net income and a net transition adjustment gain of \$65 (net of related income tax of \$38) in AOCI at January 1, 2001. Approximately \$44 of the after-tax transition adjustment gain recorded in AOCI was reclassified to income during 2001. Further, the adoption of the statement resulted in the Company recognizing \$195 of derivative instrument assets and \$29 of derivative instrument liabilities, increasing the carrying amount of hedged liabilities by \$25, and derecognizing deferred gains of \$13. The short-cut method under SFAS No. 133 is being used when the criteria are met. The Company anticipates volatility in AOCI and net income from its cash flow hedges. The amount of volatility varies with the level of derivative activities and market conditions during any period. Derivative assets are included in "Deferred charges and other assets" and derivative liabilities are included in "Accrued and other current liabilities" on the consolidated balance sheets.

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At December 31, 2001, the Company had interest rate swaps in a net loss position of \$8 designated as fair value hedges of underlying fixed rate debt obligations and a net loss position of \$16 designated as cash flow hedges of underlying forecasted interest payments. The mark-to-market effects of both the fair value hedge instruments and the underlying debt obligations were recorded as unrealized gains and losses in interest expense and are directly offsetting to the extent the hedges are effective. The effective portion of the mark-to-market effects of the cash flow hedge instrument is recorded in AOCI until the underlying interest payment affects income. The net loss from interest rate hedges included in AOCI at December 31, 2001, including the transition adjustment, was \$10 after tax. The amount to be reclassified from AOCI to interest expense within the next twelve months is expected to be \$2. All existing fair value and cash flow hedges are highly effective. As a result, there was no material impact on income due to hedge ineffectiveness. Certain fair value hedges were terminated during the year resulting in a net gain of \$3 reported in interest expense.

Commodity swaps and futures contracts with maturities of not more than 36 months are utilized and qualify as cash flow hedges. Current open contracts hedge forecasted transactions until December 2002. The effective portion of the mark-to-market effects of the cash flow hedge instrument is recorded in AOCI until the underlying commodity purchase affects income. The net loss from commodity hedges included in AOCI at December 31, 2001, including the transition adjustment, was \$12 after tax. A net after-tax loss of approximately \$11 is expected to be reclassified from AOCI to income within the next twelve months. The unrealized amounts in AOCI will fluctuate based on changes in the fair value of open contracts at the end of each reporting period.

In addition, the Company utilizes option instruments that are effective as economic hedges of commodity price exposures, but do not meet SFAS No. 133 hedge accounting criteria. At December 31, 2001, the Company had derivative assets of \$2 and derivative liabilities of \$11 relating to these instruments, with the related mark-to-market effects included in "Cost of sales" in the consolidated statements of income.

A net gain of \$112 resulting from hedges of the Company's net investment in foreign operations was included in the cumulative translation adjustment within AOCI. A net gain of \$9 was recorded in income due to net investment hedge ineffectiveness.

The Company also uses other derivative instruments that are not designated as hedging instruments, the impact of which was not material to the consolidated financial statements.

#### **K Limited Partnership**

In April 1993, three wholly owned subsidiaries of the Company contributed assets with an aggregate fair value of \$977 to Chemtech Royalty Associates L.P. ("Chemtech"), a then newly formed Delaware limited partnership. In 1993, outside investors acquired limited partner interests in Chemtech totaling 20 percent in exchange for \$200.

In early 1998, a subsidiary of the Company purchased the limited partner interests of the outside investors in Chemtech for a fair value of \$210 in accordance with wind-up provisions in the partnership agreement. The limited partnership was renamed Chemtech II L.P. ("Chemtech II"). In June 1998, the Company contributed assets with an aggregate fair value of \$783 (through a wholly owned subsidiary) to Chemtech II and an outside investor acquired a limited partner interest in Chemtech II totaling 20 percent in exchange for \$200. In September 2000, the Company

contributed additional assets with an aggregate fair value of \$18 (through a wholly owned subsidiary) to Chemtech II.

Chemtech II is a separate and distinct legal entity from the Company and its affiliates, and has separate assets, liabilities, business and operations. The partnership has a general partner, a wholly owned subsidiary of the Company, which directs business activities and has fiduciary responsibilities to the partnership and its other members.

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The outside investor in Chemtech II receives a cumulative annual priority return of \$13 on its investment and participates in residual earnings.

Chemtech II will not terminate unless a termination or liquidation event occurs. The outside investor may cause such an event to occur in the year 2003. In addition, the partnership agreement provides for various wind-up provisions wherein subsidiaries of the Company may purchase at any time the limited partner interest of the outside investor. Upon wind-up, liquidation or termination, the partners' capital accounts will be redeemed at current fair values.

For financial reporting purposes, the assets (other than intercompany loans, which are eliminated), liabilities, results of operations and cash flows of the partnerships and subsidiaries are included in the Company's consolidated financial statements, and the outside investors' limited partner interests are reflected as minority interests.

## L Stockholders' Equity

On May 11, 2000, stockholders approved a measure to increase the number of authorized common shares from 500 million to 1.5 billion and Dow's Board of Directors approved a three-for-one split of the Company's common stock. On June 16, 2000, Dow stockholders received two additional shares of stock for each share they owned on the record date of May 23, 2000. All references in the consolidated financial statements to common shares, share prices, per share amounts and stock plans have been restated retroactively for the stock split, unless otherwise noted.

On August 3, 1999, the Board of Directors terminated authorizations to repurchase the Company's common stock. The number of shares purchased under these authorizations was 12.8 million in 1999. Before August 3, 1999, the Company utilized options as part of its stock repurchase program. The Company's potential repurchase obligation related to these options was reclassified from "Stockholders' Equity" to "Temporary Equity" in the consolidated balance sheets.

The number of treasury shares issued to employees under option and purchase programs was 7.9 million in 2001, 9.9 million in 2000 and 12.3 million in 1999. In December 1999, the Company sold 10.5 million shares of common stock held in treasury in the open market for \$431.

There are no significant restrictions limiting the Company's ability to pay dividends.

Gross undistributed earnings of nonconsolidated affiliates included in retained earnings were \$165 at December 31, 2001, \$423 at December 31, 2000, and \$383 at December 31, 1999.

### *Reserved Treasury Stock at December 31*

Shares in millions	2001	2000	1999
Stock option plans	83.4	78.2	68.1
Employees' stock purchase plans	4.5	3.8	3.5
Total shares reserved	87.9	82.0	71.6

## M Stock Compensation Plans

At December 31, 2001, the Company had stock-based compensation plans, which had been approved by the Board of Directors, under which shares or options could be granted to employees and non-employee directors. The Company measures the compensation cost for these plans using the intrinsic value method of accounting prescribed by APB Opinion No. 25, "Accounting for Stock Issued to Employees." Given

the terms of the Company's plans, no compensation cost has been recognized for its fixed stock option plans and its stock purchase plan.

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The Company's reported net income (loss) and earnings (loss) per share would have been reduced (increased) had compensation cost for the Company's stock-based compensation plans been determined using the fair value method of accounting as set forth in SFAS No. 123, "Accounting for Stock-Based Compensation." For purposes of estimating the fair value disclosures below, the fair value of each stock option has been estimated on the grant date with a binomial option-pricing model using the following weighted-average assumptions:

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Dividend yield	3.8%	3.3%	3.5%
Expected volatility	46.97%	35.83%	25.86%
Risk-free interest rate	4.72%	6.46%	4.95%
Expected life of stock option plans	7 years	7 years	7 years
Expected life of stock purchase plans	0.83 years	0.83 years	0.83 years

The effects of using the fair value method of accounting are indicated in the pro forma amounts below:

	<u>2001</u>		<u>2000</u>		<u>1999</u>	
	<u>As Reported</u>	<u>Pro Forma</u>	<u>As Reported</u>	<u>Pro Forma</u>	<u>As Reported</u>	<u>Pro Forma</u>
Net income (loss) available for common stockholders	\$ (385)	\$ (444)	\$ 1,675	\$ 1,542	\$ 1,617	\$ 1,539
Earnings (Loss) per common share basic	(0.43)	(0.49)	1.88	1.73	1.85	1.76
Earnings (Loss) per common share diluted	(0.43)	(0.49)	1.85	1.70	1.82	1.73

### Employees' Stock Purchase Plans

Annually, the Board of Directors considers authorization of Employees' Stock Purchase Plans. Most employees are eligible to purchase shares of common stock of the Company valued at up to 10 percent of their annual base earnings. The value is determined using the plan price times the number of shares subscribed to by the employee. The plan price of the stock is set at about 85 percent of market price. Approximately half of the eligible employees participated in the plans during the last three years.

#### Employees' Stock Purchase Plans

	<u>2001</u>		<u>2000</u>		<u>1999</u>	
Shares in thousands	<u>Shares</u>	<u>Exercise Price*</u>	<u>Shares</u>	<u>Exercise Price*</u>	<u>Shares</u>	<u>Exercise Price*</u>
Outstanding at beginning of year	3,817	\$ 29.52	3,531	\$ 27.82	2,664	\$ 27.50
Granted	5,399	27.45	4,263	29.52	4,752	27.82
Exercised	(3,308)	28.99	(3,461)	27.89	(3,582)	27.60
Forfeited/Expired	(1,395)	29.46	(516)	28.68	(303)	27.54
Outstanding and exercisable at end of year	4,513	\$ 27.45	3,817	\$ 29.52	3,531	\$ 27.82
Fair value of purchase rights granted during the year		\$ 9.02		\$ 9.11		\$ 5.87

\*

Weighted-average per share

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**Stock Option Plans**

Under the 1988 Award and Option Plan, a plan approved by stockholders, the Company may grant options or shares of common stock to its employees subject to certain annual and individual limits. Under the 1994 Non-Employee Directors' Stock Plan, the Company may grant up to 300,000 options or shares of common stock to non-employee directors. Under the 1994 Executive Performance Plan, the Company may grant up to 300,000 options or shares of common stock to executive officers of the Company. Under all plans, the terms are fixed at the grant date.

At December 31, 2001, there were 9,175,411 shares available for grant under the 1988 Plan; 212,000 shares available for grant under the 1994 Non-Employee Directors' Stock Plan; and 278,837 shares available for grant under the 1994 Executive Performance Plan. The exercise price of each option equals the market price of the Company's stock on the date of grant, and an option's maximum term is 10 years. Options vest from one to three years. In addition, certain options granted under the 1988 Plan have performance-based vesting provisions. Total compensation expense for stock option plans was \$(35) in 2001, \$0 in 2000 and \$35 in 1999.

The following table summarizes the stock option activity of the 1988 Plan and the former Union Carbide plan, which had terms similar to the 1988 Plan:

*Stock Options*

Shares in thousands	2001		2000		1999	
	Shares	Exercise Price*	Shares	Exercise Price*	Shares	Exercise Price*
Outstanding at beginning of year	65,208	\$ 26.90	54,738	\$ 24.67	53,131	\$ 21.67
Granted	6,893	33.65	13,459	34.06	12,109	32.66
Exercised	(4,172)	16.47	(2,497)	18.63	(10,300)	18.63
Forfeited/Expired	(453)	16.47	(492)	18.63	(202)	18.63
Outstanding at end of year	67,476	\$ 28.30	65,208	\$ 26.90	54,738	\$ 24.67
Exercisable at end of year	49,578	\$ 26.24	40,206	\$ 22.87	35,530	\$ 21.03
Fair value of options granted during the year		\$ 13.65		\$ 13.23		\$ 8.71

\*

Weighted-average per share

*Stock Options at December 31, 2001*

Shares in thousands	Options Outstanding			Options Exercisable	
	Shares	Remaining Contractual Life*	Exercise Price*	Shares	Exercise Price*
Range of Exercise Prices per Share					
\$ 4.00 to \$16.00	4,634	0.98 years	\$ 11.36	4,634	\$ 11.36
16.01 to 24.00	9,928	2.30 years	20.41	9,928	20.41
24.01 to 30.50	18,011	6.32 years	26.92	18,002	26.92

Shares in thousands	<i>Options Outstanding</i>			<i>Options Exercisable</i>		
30.51 to 31.00	6,306	6.16 years	30.52	5,469	30.52	
31.01 to 32.00	8,772	7.13 years	31.10	5,152	31.10	
32.01 to 43.00	19,825	8.46 years	35.53	6,393	36.60	
<b>Total \$4.00 to \$43.00</b>	<b>67,476</b>	<b>6.08 years</b>	<b>\$ 28.30</b>	<b>49,578</b>	<b>\$ 26.24</b>	

\*  
Weighted-average per share

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Under the 1988 Dow and the former Union Carbide Plan, the Company grants deferred stock to certain employees. The grants vest either after a designated period of time, generally two to five years, or when the Company attains specified financial targets.

Shares in thousands	<i>2001</i>	<i>2000</i>	<i>1999</i>
Deferred stock compensation expense	\$ 15	\$ 67	\$ 72
Deferred shares outstanding	3,690	4,350	4,287

#### **N Employee Stock Ownership Plans and Redeemable Preferred Stock**

The Company has the Dow Employee Stock Ownership Plan ("Dow ESOP"), which is an integral part of The Dow Chemical Company Employees' Savings Plan, and, prior to December 27, 2001, had the Union Carbide Corporation Employee Stock Ownership Plan ("UCC ESOP"), which was an integral part of the Union Carbide Savings and Investment Program for Employees of Union Carbide Corporation and Participating Subsidiary Companies. On December 27, 2001, the UCC ESOP and the Dow ESOP were merged into one ESOP trust (the "ESOP") under The Dow Chemical Company Employees' Savings Plan. A significant majority of full-time employees in the United States are eligible to participate in the ESOP through the allocation of shares of the Company's common stock ("ESOP shares").

In 1989, the Dow ESOP borrowed \$138 at a 9.42 percent interest rate with a final maturity in 2004 and used the proceeds to purchase convertible preferred stock from the Company. The preferred stock was convertible into the Company's common stock (on a pre-split basis) at either:

a conversion rate of 1:1 if the fair market value of the common stock equaled or exceeded \$86.125 per share, or

the number of shares of common stock equivalent to \$86.125 per share if the fair market value of the common stock was less than \$86.125 per share, subject to the conversion conditions of the ESOP.

The preferred stock was redeemable in whole or in part at the Company's option any time after January 1, 2000, at \$86.125 per share plus an amount equal to all accrued and unpaid dividends. The dividend yield on the preferred stock was 7.75 percent of the \$86.125 per share redemption value. On February 9, 2000, the Company exercised its option to redeem the preferred stock. On that same date, the trustee of the ESOP elected to convert the preferred stock into common stock at a ratio of 1:1.

In 1990, the UCC ESOP borrowed \$325 from Union Carbide at 10 percent per annum with a maturity date of December 31, 2005, which was used to purchase shares of Union Carbide convertible preferred stock. In 1997, the UCC ESOP trustee exercised its right to convert all outstanding UCC ESOP preferred stock into Union Carbide common stock. The UCC ESOP shares were converted into shares of Dow common stock on February 6, 2001. On December 27, 2001, the UCC ESOP note was restructured with a new maturity date of December 31, 2023, and a new interest rate of 6.96 percent.

Dividends on shares held by the ESOP are paid to the ESOP and, together with Company contributions, are used, in part, by the ESOP to make debt service payments on the loans. Shares are released for allocation to participants based on the ratio of the current year's debt service to

the sum of the principal and interest payments over the combined life of the two loans.

Expense associated with the ESOP is recognized as incurred using the cost method and was \$5 in 2001, \$16 in 2000 and \$14 in 1999. At December 31, 2001, 23.0 million common shares held by the ESOP were outstanding, 14.8 million of which were allocated to participants' accounts. During 2001, 1.7 million ESOP shares were allocated to participants' accounts.

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Since the conversion of the preferred stock, the Company's guarantee of the Dow ESOP's borrowings is reported as "Long-Term Debt" and, combined with the receivable from the UCC ESOP, as "Unearned ESOP shares" on the consolidated balance sheets as a reduction of "Stockholders' Equity."

## O Pension Plans and Other Postretirement Benefits

### Pension Plans

The Company has defined benefit pension plans which cover employees in the United States and a number of other countries. The Company's funding policy is to contribute annually to those plans where pension laws and economics either require or encourage funding. Plan assets of \$11.4 billion consist mainly of equity and fixed income securities of U.S. and foreign issuers, including Company common stock with a value of approximately \$203 at December 31, 2001.

The U.S. funded plan covering the parent company is the largest plan. Benefits are based on length of service and the employee's three highest consecutive years of compensation.

#### *U.S. Plan Assumptions*

	<u>2001</u>	<u>2000</u>
Weighted-average discount rate	7.00%	7.33%
Rate of increase in future compensation levels	5.00%	4.92%
Long-term rate of return on assets	9.18%	9.22%

All other pension plans used assumptions that are consistent with (but not identical to) those of the U.S. plan.

U.S. employees are eligible to participate in defined contribution plans (Employee Savings Plans) by contributing a portion of their compensation which is matched by the Company. Defined contribution plans also cover employees in some subsidiaries in other countries, including Australia, France, Spain and the United Kingdom. Contributions charged to income for defined contribution plans were \$75 in 2001, \$66 in 2000 and \$83 in 1999.

#### *Pension Plans with Accumulated Benefit Obligations in Excess of Plan Assets at December 31*

	<u>2001</u>	<u>2000</u>
Projected benefit obligation	\$ 1,579	\$ 662
Accumulated benefit obligation	1,394	575
Fair value of plan assets	849	57

### Other Postretirement Benefits

The Company provides certain health care and life insurance benefits to retired employees. The Company funds most of the cost of these health care and life insurance benefits as incurred.

The U.S. plan covering the parent company is the largest plan. The plan provides health care benefits, including hospital, physicians' services, drug and major medical expense coverage, and life insurance benefits. For employees hired before January 1, 1993, the plan provides benefits supplemental to Medicare when retirees are eligible for these benefits. The Company and the retiree share the cost of these benefits, with the Company portion increasing as the retiree has increased years of credited service. There is a cap on the Company portion. The



Company has the ability to change these benefits at any time.

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*U.S. Plan Assumptions*

	<u>2001</u>	<u>2000</u>
Discount rate	7.00%	7.50%
Weighted-average 5-year projected medical cost trend, remaining constant thereafter	7.47-6.62%	6.58-5.39%
Long-term rate of return on assets	9.50%	9.50%

All other postretirement benefit plans used assumptions that are consistent with (but not identical to) those of the U.S. parent company plan.

Increasing the assumed medical cost trend rate by 1 percentage point in each year would increase the accumulated postretirement benefit obligation at December 31, 2001, by \$12 and the net periodic postretirement benefit cost for the year by \$1. Decreasing the assumed medical cost trend rate by 1 percentage point in each year would decrease the accumulated postretirement benefit obligation at December 31, 2001, by \$14 and the net periodic postretirement benefit cost for the year by \$1.

*Net Periodic Cost for All Significant Plans*

	<u>Defined Benefit Pension Plans</u>			<u>Other Postretirement Benefits</u>		
	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>
Service cost	\$ 206	\$ 219	\$ 230	\$ 31	\$ 32	\$ 33
Interest cost	708	655	620	133	119	112
Expected return on plan assets	(1,072)	(986)	(842)	(23)	(24)	(21)
Amortization of transition obligation		(5)	(5)			
Amortization of prior service cost (credit)	23	23	21	(40)	(49)	(58)
Amortization of unrecognized (gain) loss	(73)	(54)	15	7	(5)	(2)
Special termination/curtailment cost	113			106		
Net periodic cost (credit)	\$ (95)	\$ (148)	\$ 39	\$ 214	\$ 73	\$ 64

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*Change in Benefit Obligation, Plan Assets and Funded Status of All Significant Plans*

<i>Change in projected benefit obligation</i>	<u>Defined Benefit Pension Plans</u>		<u>Other Postretirement Benefits</u>	
	<u>2001</u>	<u>2000</u>	<u>2001</u>	<u>2000</u>
Benefit obligation at beginning of year	\$ 9,985	\$ 9,685	\$ 1,797	\$ 1,688
Service cost	206	219	31	32
Interest cost	708	655	133	119
Plan participants' contributions	11	6		25
Amendments	31	1	(4)	44
Actuarial changes in assumptions and experience	629	145	117	55
Acquisition/divestiture activity	190	(6)	2	
Benefits paid	(625)	(604)	(145)	(166)
Currency impact	93	(116)	(2)	
Special termination/curtailment cost	113		106	

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	<i>Defined</i>		<i>Other</i>	
	<i>Benefit Pension Plans</i>	<i>Plans</i>	<i>Postretirement</i>	<i>Benefits</i>
Benefit obligation at end of year	\$ 11,341	\$ 9,985	\$ 2,055	\$ 1,797

*Change in plan assets*

Market value of plan assets at beginning of year	\$ 12,435	\$ 12,741	\$ 282	\$ 312
Actual return on plan assets	(611)	244	(16)	(23)
Employer contributions	30	28	1	
Plan participants' contributions	11	6		
Acquisition/divestiture activity	158	(1)		
Benefits paid	(599)	(583)	(1)	(7)
Market value of plan assets at end of year	\$ 11,424	\$ 12,435	\$ 266	\$ 282

*Funded status and net amounts recognized*

Plan assets in excess of (less than) benefit obligation	\$ 83	\$ 2,450	\$ (1,769)	\$ (1,515)
Unrecognized net transition obligation	5	2		1
Unrecognized prior service cost (credit)	123	143	(62)	(110)
Unrecognized net (gain) loss	(34)	(2,528)	95	(69)
Net amounts recognized in the consolidated balance sheets	\$ 177	\$ 67	\$ (1,736)	\$ (1,693)

*Net amounts recognized in the consolidated balance sheets consist of:*

Accrued benefit liability	\$ (768)	\$ (569)	\$ (1,736)	\$ (1,694)
Prepaid benefit cost	818	535		1
Additional minimum liability intangible asset	15	19		
Accumulated other comprehensive income pretax	112	82		
Net amounts recognized in the consolidated balance sheets	\$ 177	\$ 67	\$ (1,736)	\$ (1,693)

**P Commitments and Contingent Liabilities**

**Litigation**

On May 15, 1995, Dow Corning Corporation ("Dow Corning"), in which the Company is a 50 percent shareholder, voluntarily filed for protection under Chapter 11 of the Bankruptcy Code to resolve litigation related to Dow Corning's breast implant and other silicone medical products. As a consequence of that action and prior charges taken by Dow Corning, the Company fully reserved its

investment in Dow Corning and reserved its 50 percent share of equity earnings through the third quarter of 2000.

The Company's financial statement exposure for breast implant product liability claims against Dow Corning is limited to its investment in Dow Corning, which, after fully reserving its investment in Dow Corning and reserving its share of equity earnings through the third quarter of 2000, is not material. As a result, any future charges by Dow Corning related to such claims or as a result of the Chapter 11 proceeding would not have a material adverse impact on the Company's consolidated financial statements.

The Company is separately named as a defendant in more than 14,000 breast implant product liability cases, of which approximately 4,000 state cases are the subject of summary judgments in favor of the Company. In these situations, plaintiffs have alleged that the Company should

be liable for Dow Corning's alleged torts based on the Company's 50 percent stock ownership in Dow Corning and that the Company should be liable by virtue of alleged "direct participation" by the Company or its agents in Dow Corning's breast implant business. These latter, direct participation claims include counts sounding in strict liability, fraud, aiding and abetting, conspiracy, concert of action and negligence.

Judge Sam C. Pointer of the U.S. District Court for the Northern District of Alabama was appointed by the Federal Judicial Panel on Multidistrict Litigation to oversee all of the product liability cases involving silicone breast implants filed in the U.S. federal courts. Initially, in a ruling issued on December 1, 1993, Judge Pointer granted the Company's motion for summary judgment, finding that there was no basis on which a jury could conclude that the Company was liable for any claimed defects in the breast implants manufactured by Dow Corning. In an interlocutory opinion issued on April 25, 1995, Judge Pointer affirmed his earlier ruling as to plaintiffs' corporate control claims but vacated that ruling as to plaintiffs' direct participation claims.

On July 7, 1998, Dow Corning, the Company and Corning Incorporated ("Corning"), on the one hand, and the Tort Claimants' Committee in Dow Corning's bankruptcy on the other, agreed on a binding Term Sheet to resolve all tort claims involving Dow Corning's silicone medical products, including the claims against Corning and the Company (collectively, the "Shareholders"). The agreement set forth in the Term Sheet was memorialized in a Joint Plan of Reorganization (the "Joint Plan") filed by Dow Corning and the Tort Claimants' Committee (collectively, the "Proponents") on November 9, 1998. On February 4, 1999, the Bankruptcy Court approved the disclosure statement describing the Joint Plan. Before the Joint Plan could become effective, however, it was subject to a vote by the claimants, a confirmation hearing and all relevant provisions of the Bankruptcy Code. Voting was completed on May 14, 1999, and the confirmation hearing concluded on July 30, 1999.

On November 30, 1999, the Bankruptcy Court issued an Order confirming the Joint Plan, but then issued an Opinion on December 21, 1999, that, in the view of the Proponents and the Shareholders, improperly interpreted or attempted to modify certain provisions of the Joint Plan affecting the resolution of tort claims involving Dow Corning's silicone medical products against various entities, including the Shareholders. Many of the parties in interest, including the Shareholders, filed various motions and appeals seeking, among other things, a clarification of the December 21, 1999 Opinion. These motions and appeals were heard by U.S. District Court Judge Denise Page Hood on April 12 and 13, 2000, and on November 13, 2000, Judge Hood affirmed the Bankruptcy Court's November 30, 1999 Order confirming the Joint Plan and reversed, in part, the Bankruptcy Court's December 21, 1999 Opinion, including that portion of the Opinion the Shareholders had appealed. In turn, various parties in interest appealed Judge Hood's decision to the United States Court of Appeals for the Sixth Circuit, which heard oral arguments in the matter on October 23, 2001. On January 29, 2002, the Sixth Circuit issued its opinion which, among other things, affirmed Judge Hood's determination that claims against various entities, including the Shareholders, may be enjoined where "unusual circumstances" exist, and remanded the case to the District Court for certain factual determinations. The effectiveness of the

Joint Plan remains subject to the District Court making such factual determinations and any subsequent appellate action. Accordingly, there can be no assurance at this time that the Joint Plan will become effective.

It is the opinion of the Company's management that the possibility is remote that plaintiffs will prevail on the theory that the Company should be liable in the breast implant litigation because of its shareholder relationship with Dow Corning. The Company's management believes that there is no merit to plaintiffs' claims that the Company is liable for alleged defects in Dow Corning's silicone products because of the Company's alleged direct participation in the development of those products, and the Company intends to contest those claims vigorously. Management believes that the possibility is remote that a resolution of plaintiffs' direct participation claims, including the vigorous defense against those claims, would have a material adverse impact on the Company's financial position or cash flows. Nevertheless, in light of Judge Pointer's April 25, 1995 ruling, it is possible that a resolution of plaintiffs' direct participation claims, including the vigorous defense against those claims, could have a material adverse impact on the Company's net income for a particular period, although it is impossible at this time to estimate the range or amount of any such impact.

Numerous lawsuits have been brought against the Company and other chemical companies alleging that the manufacture, distribution or use of pesticides containing dibromochloropropane ("DBCP") has caused, among other things, property damage, including contamination of groundwater. To date, there have been no verdicts or judgments against the Company in connection with these allegations. It is the opinion of the Company's management that the possibility is remote that the resolution of such lawsuits will have a material adverse impact on the Company's consolidated financial statements.

Accruals for environmental matters are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated, based on current law and existing technologies. The Company had accrued obligations of \$444 at December 31, 2001, for environmental matters, including \$47 for the remediation of Superfund sites. This is management's best estimate of the costs for remediation and restoration with respect to environmental matters for which the Company has accrued liabilities, although the ultimate cost with respect to these particular matters could range up to twice that amount. Inherent uncertainties exist in these estimates primarily due to unknown conditions, changing governmental regulations and legal standards regarding liability, and evolving technologies for handling site remediation and

restoration. It is the opinion of the Company's management that the possibility is remote that costs in excess of those accrued or disclosed will have a material adverse impact on the Company's consolidated financial statements.

Union Carbide Corporation, a wholly owned subsidiary of the Company, has filed its annual report on Form 10-K for the year ended December 31, 2001, and has provided the disclosure below concerning asbestos. The Company does not consider Union Carbide's asbestos-related liability to be material to Dow's consolidated financial statements. The disclosures contained in Union Carbide's Form 10-K are provided in this filing to more broadly disclose information concerning Union Carbide's asbestos-related liability. References below to the "Corporation" or to "UCC" refer to Union Carbide Corporation, and dollar amounts are stated in millions.

"The Corporation and its subsidiaries are involved in a number of legal proceedings and claims with both private and governmental parties. These cover a wide range of matters, including, but not limited to: product liability; trade regulation; governmental regulatory proceedings; health, safety and environmental matters; employment; patents; contracts; taxes; and commercial disputes. In some of these legal proceedings and claims, the cost of remedies that may be sought or damages claimed is substantial.

"Separately, the Corporation is involved in a large number of asbestos-related suits filed, for the most part, in various state courts at various times over the past three decades. These suits principally allege personal injury resulting from exposure to asbestos-containing products and

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frequently seek both general and punitive damages, often in very large amounts. The alleged claims primarily relate to products that UCC sold in the past; alleged exposure to asbestos-containing products located on UCC's premises; and UCC's responsibility for asbestos suits filed against a divested subsidiary Amchem Products, Inc. ("Amchem").

"Typically, the Corporation is only one of many named defendants, many of which, including UCC and Amchem, were members of the Center for Claims Resolution ("CCR") which sought to resolve asbestos cases on behalf of its members. The CCR has ceased operating in this manner although it still administers certain settlements. The Corporation now utilizes Peterson Asbestos Claims Enterprise for claims processing and insurance invoicing.

"During the third quarter of 2001, plaintiffs filed asbestos-related suits against the Corporation and Amchem at a rate greater than the historical average, but filings returned to a lower rate during the fourth quarter. This third quarter increase in claims against UCC and Amchem was influenced by the bankruptcy filings of several former CCR members. The Corporation expects more asbestos-related suits to be filed against it and Amchem in the future. The Corporation cannot estimate the range of liability that will result from these future cases. The Corporation will aggressively defend or reasonably resolve, as appropriate, both pending and future cases. To date, substantially all of the amounts paid by the Corporation to resolve asbestos-related suits have been covered by third-party insurance.

"For pending cases, the Corporation had asbestos-related litigation accruals of \$233 and \$118 at December 31, 2001 and 2000, respectively, and related insurance recovery receivables of \$223 and \$108 at December 31, 2001 and 2000, respectively. Defense and resolution costs for asbestos-related litigation were \$53, \$53 and \$44 for 2001, 2000 and 1999, respectively, of which \$51, \$50 and \$43 were reimbursed by insurance carriers. In addition, at December 31, 2001, the Corporation had other litigation accruals, unrelated to environmental or asbestos litigation, of \$15 and related insurance recovery receivables of \$15.

"While it is not possible at this time to determine with certainty the ultimate outcome of any of the legal proceedings and claims referred to in this filing, management believes that adequate provisions have been made for probable losses with respect to pending claims and proceedings, and that the ultimate outcome of all known and future claims, after provisions for insurance, will not have a material adverse effect on the consolidated financial position of the Corporation, but could have a material effect on consolidated results of operations in a given quarter or year. Should any losses be sustained in connection with any of such legal proceedings and claims in excess of provisions provided and available insurance, they will be charged to income when determinable."\*

\*

Union Carbide Corporation, Annual Report on Form 10-K for the Year Ended December 31, 2001, Notes to the Consolidated Financial Statements, Note P Commitments and Contingent Liabilities, Litigation.

In addition to the breast implant, DBCP and environmental remediation matters, the Company is party to a number of other claims and lawsuits arising out of the normal course of business with respect to commercial matters, including product liability, governmental regulation

and other actions. Certain of these actions purport to be class actions and seek damages in very large amounts. All such claims are being contested. Dow has an active risk management program consisting of numerous insurance policies secured from many carriers at various times. These policies provide coverage that will be utilized to minimize the impact, if any, of the contingencies described above.

Except for the possible effect on the Company's net income for breast implant litigation described above, it is the opinion of the Company's management that the possibility is remote that the aggregate of all claims and lawsuits will have a material adverse impact on the Company's consolidated financial statements.

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## Purchase Commitments

The Company has three major agreements for the purchase of ethylene-related products in Canada. The purchase prices are determined on a cost-of-service basis, which, in addition to covering all operating expenses and debt service costs, provides the owner of the manufacturing plants with a specified return on capital. Total purchases under the agreements were \$221 in 2001, \$178 in 2000 and \$144 in 1999.

At December 31, 2001, the Company had various outstanding commitments for take or pay and throughput agreements, including the purchase agreements referred to above, for terms extending from one to 20 years. In general, such commitments were at prices not in excess of current market prices.

### *Fixed and Determinable Portion of Take or Pay and Throughput Obligations at December 31, 2001*

2002	\$	542
2003		512
2004		470
2005		431
2006		277
2007 through expiration of contracts		1,889
		<hr/>
Total	\$	4,121
		<hr/>

In addition to the take or pay obligations at December 31, 2001, the Company had outstanding purchase commitments which ranged from one to 20 years for steam, electrical power, materials, property and other items used in the normal course of business of approximately \$152. In general, such commitments were at prices not in excess of current market prices. The Company also had outstanding commitments for construction performance and lease payment guarantees and other obligations of \$860. The Company was also committed to lease manufacturing facilities under construction in The Netherlands.

## Q Supplementary Information

### *Accrued and Other Current Liabilities at December 31*

	<u>2001</u>	<u>2000</u>
Accrued payroll	\$ 65	\$ 295
Accrued vacations	159	235
Employee retirement plans	123	170
Interest payable	206	145
Accrued miscellaneous taxes	204	146
Insurance companies' reserves	302	253
Deferred income	317	219
Other	744	794
	<hr/>	<hr/>
Total	\$ 2,120	\$ 2,257
	<hr/>	<hr/>

*Sundry Income Net*

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Royalty income (1)			\$ 45
Licensing business litigation settlements			50
Gain on sales of assets and securities (2)	\$ 378	\$ 206	79
Foreign exchange gain (loss)	(24)	37	74
Other net	40	109	81
	<u>          </u>	<u>          </u>	<u>          </u>
Total	\$ 394	\$ 352	\$ 329
	<u>          </u>	<u>          </u>	<u>          </u>

(1) Included in "Net sales" beginning in 2000.

(2) 2000 included a gain of \$98 on sale of Cochin pipeline system (see Note C) and impairment losses of \$77 for the disposition in February 2001 of businesses related to the Union Carbide merger. 2001 included a gain of \$266 on the sale of stock in Schlumberger Ltd. in the first quarter.

*Other Supplementary Information*

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Cash payments for interest	\$ 711	\$ 705	\$ 630
Cash payments for income taxes	278	730	710
Provision for doubtful receivables	39	24	52

*Sales of Accounts Receivables*

Since 1997, the Company has routinely sold, without recourse, a participation in a pool of qualifying trade accounts receivables. According to the agreements of the program, Dow maintains the servicing of these receivables. In 2000 and 1999, a maximum of \$450 in receivables was available for sale in the pool, and as receivables in the pool were collected, new receivables were added. In June 2001, a new agreement for sales of qualifying trade accounts receivables of Union Carbide increased the pool maximum to \$750. The average monthly participation in the pool was \$432 in 2001, \$155 in 2000 and \$175 in 1999. The net cash flow in any given period represents the discount on sales, which is recorded as interest expense. The average monthly discount was approximately \$1.1 in 2001 and \$0.7 in 2000 and 1999.

*Earnings (Loss) Per Share Calculations*

	<u>2001</u>		<u>2000</u>		<u>1999</u>	
	<i>Basic</i>	<i>Diluted</i>	<i>Basic</i>	<i>Diluted</i>	<i>Basic</i>	<i>Diluted</i>
Income (Loss) before cumulative effect of change in accounting principle	\$ (417)	\$ (417)	\$ 1,675	\$ 1,675	\$ 1,637	\$ 1,637

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	2001		2000		1999	
Cumulative effect of change in accounting principle	52	52			(20)	(20)
Net income (loss) available for common stockholders	\$ (385)	\$ (385)	\$ 1,675	\$ 1,675	\$ 1,617	\$ 1,617
Add back preferred stock dividends						5
Net income (loss) for EPS calculations	\$ (385)	\$ (385)	\$ 1,675	\$ 1,675	\$ 1,617	\$ 1,622
Weighted-average common shares outstanding	901.8	901.8	893.2	893.2	874.9	874.9
Add back effect of dilutive securities:						
Stock options and awards (1)				10.8		14.6
Converted preferred stock				0.5		4.0
Weighted-average common shares for EPS calculations	901.8	901.8	893.2	904.5	874.9	893.5
Earnings (Loss) per common share before cumulative effect of change in accounting principle	\$ (0.46)	\$ (0.46)	\$ 1.88	\$ 1.85	\$ 1.87	\$ 1.84
Earnings (Loss) per common share	\$ (0.43)	\$ (0.43)	\$ 1.88	\$ 1.85	\$ 1.85	\$ 1.82

(1) For 2001, the effect of stock options and awards of 11.2 million shares was antidilutive and therefore excluded.

## R Operating Segments and Geographic Areas

Dow is a diversified, worldwide manufacturer and supplier of more than 3,200 products. The Company's wide range of products are used primarily as raw materials in the manufacture of customer products and services. The Company serves the following industries: appliance; automotive; agricultural; building and construction; chemical processing; electronics; furniture; housewares; insurance and finance; oil and gas; packaging; paints, coatings and adhesives; personal care; pharmaceutical; processed foods; pulp and paper; textile and carpet; utilities; and water treatment.

Dow conducts its worldwide operations through global businesses, which are aggregated into reportable operating segments based on the nature of the products and production processes, end-use markets, channels of distribution and regulatory environment. The reportable operating segments are: Performance Plastics, Performance Chemicals, Agricultural Products, Plastics, Chemicals, and Hydrocarbons and Energy. The Corporate Profile included in Item 1. Business describes the operating segments, how they are aggregated, and the types of products and services from which their revenues are derived.

Unallocated and Other contains the reconciliation between the totals for reportable segments and the Company totals. It also represents the operating segments that do not meet the quantitative threshold for determining reportable segments, research and other expenses related to developmental activities in Growth Platforms, and other corporate items not allocated to the operating segments. Growth Platforms include advanced materials for electronics, industrial biotechnology and new

developments with a focus on identifying and pursuing emerging commercial and technology opportunities.

Transfers between operating segments are generally valued at cost. Transfers of products to the Agricultural Products segment from the other segments, however, are generally valued at market-based prices. The revenues generated by these transfers are immaterial.

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Operating Segment Information

	<u>Performance Plastics</u>	<u>Performance Chemicals</u>	<u>Agricultural Products</u>	<u>Plastics</u>	<u>Chemicals</u>	<u>Hydrocarbons and Energy</u>	<u>Unallocated and Other</u>	<u>Total</u>
<b>2001</b>								
Sales to external customers	\$ 7,321	\$ 5,081	\$ 2,612	\$ 6,452	\$ 3,552	\$ 2,511	\$ 276	\$ 27,805
Equity in earnings (losses) of nonconsolidated affiliates	(13)	(2)	(5)	15	45	25	(36)	29
IPR&D and merger-related expenses and restructuring (1)			69				1,487	1,556
EBIT (2)	643	611	104	125	111	(22)	(1,537)	35
Total assets	7,297	5,283	4,242	6,857	3,527	1,513	6,796	35,515
Investments in nonconsolidated affiliates	316	47	55	625	119	236	183	1,581
Depreciation and amortization	415	342	183	516	286	58	15	1,815
Capital expenditures	381	268	119	218	493	103	5	1,587
<b>2000</b>								
Sales to external customers	\$ 7,667	\$ 5,343	\$ 2,346	\$ 7,118	\$ 4,109	\$ 2,626	\$ 325	\$ 29,534
Equity in earnings (losses) of nonconsolidated affiliates	2	20	(9)	239	78	36	(12)	354
IPR&D (1)	6							6
EBIT (2)	1,029	536	212	945	422	136	(175)	3,105
Total assets	6,603	4,805	3,448	7,228	3,796	1,795	8,316	35,991
Investments in nonconsolidated affiliates	394	76	57	661	277	320	311	2,096
Depreciation and amortization	392	359	185	394	276	97	35	1,738
Capital expenditures	323	214	121	427	289	414	20	1,808
<b>1999</b>								
Sales to external customers	\$ 7,031	\$ 5,044	\$ 2,334	\$ 5,764	\$ 3,603	\$ 1,731	\$ 352	\$ 25,859
Equity in earnings (losses) of nonconsolidated affiliates	41	4	(6)	44	23	13	(24)	95
IPR&D and special charges (1)		6	94					100
EBIT (2)	1,578	805	125	564	292	8	(350)	3,022
Total assets	5,990	4,748	3,346	6,351	3,445	1,905	7,671	33,456
Investments in nonconsolidated affiliates	359	96	82	857	164	264	293	2,115
Depreciation and amortization	384	327	190	389	281	96	42	1,709
Capital expenditures	395	253	122	495	361	533	17	2,176

(1) See Note B for a discussion of purchased in-process research and development ("IPR&D"), special charges, and merger-related expenses and restructuring.

(2) The reconciliation between "Earnings (Loss) before Interest, Income Taxes and Minority Interests" ("EBIT") and "Income (Loss) before Income Taxes and Minority Interests" consists of "Interest income" and "Interest expense and amortization of debt discount," and can be found in the Consolidated Statements of Income.

The Company operates 208 manufacturing sites in 38 countries. The United States is home to 67 of these sites, representing 59 percent of the Company's long-lived assets. Sales are attributed to geographic areas based on customer location. Long-lived assets are attributed to geographic areas based on asset location. At December 31, 2001, long-lived assets located in Canada and Germany represented approximately 10 percent and 9 percent of the total, respectively.



## Geographic Area Information

	<u>United States</u>	<u>Europe</u>	<u>Rest of World</u>	<u>Total</u>
<b>2001</b>				
Sales to external customers	\$ 11,725	\$ 8,891	\$ 7,189	\$ 27,805
Long-lived assets	8,032	2,904	2,643	13,579
<b>2000</b>				
Sales to external customers	\$ 12,787	\$ 8,742	\$ 8,005	\$ 29,534
Long-lived assets	8,455	2,533	2,723	13,711
<b>1999</b>				
Sales to external customers	\$ 11,345	\$ 7,702	\$ 6,812	\$ 25,859
Long-lived assets	8,207	2,232	2,572	13,011

**S Preferred Securities of Subsidiaries**

In July 1999, Tornado Finance V.O.F., a consolidated foreign subsidiary of the Company, issued \$500 of preferred securities in the form of preferred partnership units. The units provide a distribution of 7.965 percent, are mandatorily redeemable in 2009, and may be called at any time by the subsidiary. The preferred partnership units have been classified as "Preferred Securities of Subsidiaries" in the consolidated balance sheets. The distributions are included in "Minority interests' share in income" in the consolidated statements of income.

In September 2001, Hobbes Capital S.A., a consolidated foreign subsidiary of the Company, issued \$500 of preferred securities in the form of equity certificates. The certificates provide a floating rate return based on London Interbank Offered Rate (LIBOR) and may be redeemed in 2008 and at seven-year intervals thereafter. The equity certificates have been classified as "Preferred Securities of Subsidiaries" in the consolidated balance sheets. The preferred return is included in "Minority interests' share in income" in the consolidated statements of income.

**The Dow Chemical Company and Subsidiaries**  
**Quarterly Statistics**

In millions, except per share amounts (Unaudited)

<b>2001</b>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>Year</u>
Net sales	\$ 7,386	\$ 7,344	\$ 6,729	\$ 6,346	\$ 27,805
Merger-related expenses and restructuring and IPR&D	1,384	24	115	33	1,556
Earnings (Loss) before interest, income taxes and minority interests	(882)	558	253	106	35
Income (Loss) before cumulative effect of change in accounting principle	(717)	280	57	(37)	(417)
Cumulative effect of change in accounting principle	32				32
Net income (loss) available for common stockholders	(685)	280	57	(37)	(385)
Earnings (Loss) before cumulative effect of change in accounting principle per common share basic	(0.79)	0.31	0.06	(0.04)	(0.46)
Earnings (Loss) per common share basic	(0.76)	0.31	0.06	(0.04)	(0.43)
Earnings (Loss) before cumulative effect of change in accounting principle per common share diluted	(0.79)	0.31	0.06	(0.04)	(0.46)
Earnings (Loss) per common share diluted	(0.76)	0.31	0.06	(0.04)	(0.43)
Common stock dividends declared per share of Dow common stock	0.29	0.335	0.335	0.335	1.295

In millions, except per share amounts (Unaudited)

Market price range of common stock:(1)

	2000	1st	2nd	3rd	4th	Year
High	37.31	39.67	37.00	38.67	39.67	
Low	28.80	31.04	25.06	31.55	25.06	

Net sales	\$ 7,269	\$ 7,586	\$ 7,448	\$ 7,231	\$ 29,534
IPR&D				6	6
Earnings before interest, income taxes and minority interests	902	1,129	694	380	3,105
Net income available for common stockholders	512	657	357	149	1,675
Earnings per common share basic	0.58	0.73	0.40	0.17	1.88
Earnings per common share diluted	0.57	0.72	0.40	0.16	1.85
Common stock dividends declared per share of Dow common stock	0.29	0.29	0.29	0.29	1.16

Market price range of common stock:(1)

High	47.17	41.83	33.88	38.38	47.17
Low	30.67	30.06	23.88	23.00	23.00

(1) Composite price as reported on the New York Stock Exchange.

See Notes to the Consolidated Financial Statements.

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## ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

There has been no reported disagreement on any matter of accounting principles or procedures or financial statement disclosure in 2001 with the Independent Auditors.

## PART III

### ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Information relating to Directors and executive officers of the Company is contained in the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company to be held on May 9, 2002, and is incorporated herein by reference. See also the information concerning executive officers of the registrant set forth in Part I under the caption "Executive Officers of the Registrant" in reliance on General Instruction G to Form 10-K.

### ITEM 11. EXECUTIVE COMPENSATION

Information relating to executive compensation is contained in the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company to be held on May 9, 2002, and is incorporated herein by reference.

### ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

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Information with respect to beneficial ownership of the common stock as of March 1, 2002, by each Director and all Directors and officers of the Company as a group is contained in the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company to be on held May 9, 2002, and is incorporated herein by reference.

Information relating to any person who beneficially owns in excess of 5 percent of the total outstanding shares of Dow common stock is contained in the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company to be on held May 9, 2002, and is incorporated herein by reference.

### ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

There were no such reportable relationships or related transactions in 2001.

## PART IV

### ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

(a)

The following documents are filed as part of this report:

1. The Company's 2001 Consolidated Financial Statements and the Independent Auditors' Reports are included in Item 8 of Part II.
2. Financial Statement Schedules.  
The following Financial Statement Schedule should be read in conjunction with the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K and the Independent Auditors' Consent and Report On Financial Statement Schedule at Exhibit 23(a):

Schedule II	Valuation and Qualifying Accounts	Page 87
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Schedules other than the one listed above are omitted because of the absence of the conditions under which they are required or because the information called for is included in the Consolidated Financial Statements or Notes thereto.

3. Exhibits See the Exhibit Index on pages 89-91 of this Annual Report on Form 10-K for exhibits filed with this Annual Report on Form 10-K (see below) and for exhibits incorporated by reference.  
The Company will provide a copy of any exhibit upon receipt of a written request for the particular exhibit or exhibits desired. All requests should be addressed to the Vice President and Controller of the Company at the address of the Company's principal executive offices.

The following exhibits listed on the Exhibit Index are filed with this Annual Report on Form 10-K:

10(q)	A copy of an employment agreement with Richard L. Manetta, Dow Corporate Vice President and General Counsel.	Page 92
21	Subsidiaries of The Dow Chemical Company.	Page 96
23(a)	Independent Auditors' Consent and Report On Financial Statement Schedule.	Page 113
23(b)	Independent Auditors' Consent.	Page 114

(b)

Reports on Form 8-K:

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On October 25, 2001, the Company filed a Current Report on Form 8-K that included the press release announcing the third quarter 2001 earnings for the Company.

On January 3, 2002, the Company filed a Current Report on Form 8-K revising its fourth quarter 2001 earnings outlook for the Company.

On January 31, 2002, the Company filed a Current Report on Form 8-K that included the press release issued on January 31, 2002, announcing the fourth quarter 2001 earnings for the Company.

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### TRADEMARKS

The following trademarks of The Dow Chemical Company appear in this report:

AFFINITY, AMPLIFY, ASPUN, ATTANE, BLOX, CALIBRE, COVELLE, D.E.H., D.E.N., D.E.R., DERAKANE, DERAKANE MOMENTUM, DOW, DOWEX, DOWFAX, DOWFLAKE, DOWLEX, DOWPER, DOWTHERM, DRYTECH, ELITE, EMERGE, THE ENHANCER, ENVISION, ETHAFOAM, ETHOCEL, FULCRUM, IMMOTUS, INSITE, INSPIRE, INSTILL, INTACTA, INTEGRAL, ISONATE, ISOPLAST, LAMDEX, LIFESPAN, LIQUIDOW, MAGNUM, MAXICHECK, MAXISTAB, METHOCEL, OPTICITE, OPTIM, PAPI, PELADOW, PELLETHANE, PREVAIL, PRIMACOR, PROCITE, PULSE, QUASH, QUESTRA, RETAIN, SAFE-TAINER, SARAN, SARANEX, SPECTRIM, STRANDFOAM, STYROFOAM, STYRON, STYRON A-TECH, SYNERGY, SYNTEGRA, TANKLITE, THERMAX, TRENCHCOAT, TRYCITE, TRYMER, TYRIL, VERSENE, VORACOR, VORALAST, VORALUX, VORANATE, VORANOL, VORANOL VORACTIV, ZETABON

The following trademarks of Dow AgroSciences LLC appear in this report:

CLINCHER, CONFIRM, DITHANE, DURSBAN, FIRSTRATE, FORTRESS, GARLON, GLYPHOMAX, GOAL, GRANDSTAND, INTREPID, LONTREL, LORSBAN, MIMIC, MUSTANG, SENTRICON, SPIDER, STARANE, STINGER, STRONGARM, TELONE, TORDON, TRACER NATURALYTE, TREFLAN, VIKANE

The following trademark of Dow BioProducts Ltd. appears in this report:

WOODSTALK

The following trademark of American Chemistry Council appears in this report:

RESPONSIBLE CARE

The following trademark of Dow Corning Corporation appears in this report:

SYLTHERM

The following trademarks of Essex Specialty Products, Inc., appear in this report:

BETABRACE, BETADAMP, BETAFOAM, BETAGUARD, BETAMATE, BETASEAL

The following trademark of FilmTec Corporation appears in this report:

FILMTEC

The following trademarks of Flexible Products Company appear in this report:

GREAT STUFF, INSTA-STIK

The following trademarks of Hampshire Chemical Corp. appear in this report:

DAXAD, HAMPOSYL

The following trademark of INEOS plc appears in this report:

GAS/SPEC

The following trademark of Mycogen Corporation appears in this report:

MYCOGEN

The following trademark of PhytoGen Seed Company, LLC appears in this report:  
PHYTOGEN

The following registered trademark of Solutia Inc. is used by The Dow Chemical Company under license and appears in this report:  
VYDYNE

The following trademarks or service marks of Union Carbide Corporation or its subsidiaries appear in this report:

AMERCHOL, CARBOWAX, CELLOSIZ, CYRACURE, FLEXOMER, LP OXO, METEOR,  
NEOCAR, POLYOX, POLYPHOBE, REDI-LINK, SHAC, SI-LINK, TERGITOL, TONE, TRITON,  
TUFLIN, UCAR, UCARTHERM, UCAT, UCON, UNIGARD, UNIPOL, UNIPURGE, UNIVAL

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## SCHEDULE II

**The Dow Chemical Company and Subsidiaries**  
**Valuation and Qualifying Accounts**  
**For the Years Ended December 31**  
**(In millions)**

COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E
Description	Balance at Beginning of Year	Additions to Reserves	Deductions from Reserves	Balance at End of Year
<b>2001</b>				
RESERVES DEDUCTED FROM ASSETS TO WHICH THEY APPLY:				
For doubtful receivables	\$ 103	\$ 55	\$ 35(a)	\$ 123
Other investments and noncurrent receivables	308	28	19	317
Accumulated goodwill amortization	459	126	16	569
<b>2000</b>				
RESERVES DEDUCTED FROM ASSETS TO WHICH THEY APPLY:				
For doubtful receivables	\$ 126	\$ 39	\$ 62(a)	\$ 103
Other investments and noncurrent receivables	404	11	107	308
Accumulated goodwill amortization	397	96	34	459
<b>1999</b>				
RESERVES DEDUCTED FROM ASSETS TO WHICH THEY APPLY:				
For doubtful receivables	\$ 115	\$ 66	\$ 55(a)	\$ 126
Other investments and noncurrent receivables	767	74	437(b)	404
Accumulated goodwill amortization	285	129	17	397
			<b>2001</b>	<b>2000</b>
			<b>1999</b>	

(a) Deductions represent:



W. D. Davis, Director

P. G. Stern, Director

/s/ B. H. FRANKLIN

B. H. Franklin, Director

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**EXHIBIT INDEX**

EXHIBIT NO.	DESCRIPTION
3(i)	The Restated Certificate of Incorporation of The Dow Chemical Company as filed with the Secretary of State of the State of Delaware on June 1, 2000, incorporated by reference to Exhibit 3(i) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 2000.
3(ii)	The Bylaws of The Dow Chemical Company, as re-adopted in full on February 11, 1999, effective February 10, 1999; as amended February 8, 2001, effective March 1, 2001; and as amended July 12, 2001, incorporated by reference to Exhibit 3(ii) to The Dow Chemical Company Quarterly Report on Form 10-Q for the quarter ended June 30, 2001.
4	Indenture, dated as of April 1, 1992, between The Dow Chemical Company and the First National Bank of Chicago, as trustee (incorporated by reference to Exhibit 4.1 to The Dow Chemical Company's Registration Statement on Form S-3, File No. 333-88617 (the "S-3 Registration Statement")), as amended by the Supplemental Indenture, dated as of January 1, 1994, between The Dow Chemical Company and The First National Bank of Chicago, as trustee (incorporated by reference to Exhibit 4.2 to the S-3 Registration Statement), as amended by the Second Supplemental Indenture, dated as of October 1, 1999, between The Dow Chemical Company and Bank One Trust Company, N.A. (formerly The First National Bank of Chicago), as trustee (incorporated by reference to Exhibit 4.3 to the S-3 Registration Statement), as amended by the Third Supplemental Indenture, dated as of May 15, 2001, between The Dow Chemical Company and Bank One Trust Company, N.A. (formerly The First National Bank of Chicago), as trustee (incorporated by reference to Exhibit 4.4 to The Dow Chemical Company's Registration Statement on Form S-4, File No. 333-67368); and all other such indentures that define the rights of holders of long-term debt of The Dow Chemical Company and its consolidated subsidiaries as shall be requested to be furnished to the Securities and Exchange Commission pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K.
10(a)	The Dow Chemical Company Executive Supplemental Retirement Plan, incorporated by reference to Exhibit 10(a) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1992.
10(b)	The Dow Chemical Company 1979 Award and Option Plan, as amended through May 1983 (included as part of and incorporated by reference to the Prospectus contained in Post-Effective Amendment No. 4 to The Dow Chemical Company's Registration Statement on Form S-8, File No. 2-64560, filed June 23, 1983), as amended April 12, 1984 (incorporated by reference to Exhibit 10(ff) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1984), as amended April 18, 1985 (incorporated by reference to Exhibit 10(fff) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1985), as amended October 30, 1987 (incorporated by reference to Exhibit 10(j) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1987).

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- 10(c) The Dow Chemical Company Voluntary Deferred Compensation Plan for Outside Directors, as amended effective as of July 1, 1994, incorporated by reference to Exhibit 10(f) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1994, as amended in the manner described in the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company held on May 14, 1998, incorporated by reference.
- 10(d) The Dow Chemical Company Executive Post Retirement Life Insurance Program, incorporated by reference to Exhibit 10(g) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1992.
- 10(e) The Dow Chemical Company Dividend Unit Plan, incorporated by reference to Exhibit 10(j) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1992.
- 10(f) The Dow Chemical Company 1988 Award and Option Plan (included as part of and incorporated by reference to the Prospectus contained in The Dow Chemical Company's Registration Statement on Form S-8, File No. 33-21748, filed May 16, 1988), as amended during 1991 (incorporated by reference to Exhibit 10(k) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1991), as amended effective as of January 1, 1997 (incorporated by reference to Appendix A to the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company held on May 15, 1997).
- 10(g) The Dow Chemical Company Executive Split Dollar Life Insurance Plan Agreement, as amended effective as of December 19, 1994, incorporated by reference to Exhibit 10(m) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1995.
- 10(h) The Dow Chemical Company 1994 Executive Performance Plan, incorporated by reference to the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company held on May 12, 1994.
- 10(i) The Dow Chemical Company 1994 Non-Employee Directors' Stock Plan, incorporated by reference to Exhibit 10(o) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1994.
- 10(j) A written description of the one-time grant of shares of the common stock of The Dow Chemical Company to new non-employee Directors, incorporated by reference to the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company to be held on May 9, 2002.
- 10(k) A written description of the 1998 Non-Employee Directors' Stock Incentive Plan, incorporated by reference to the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company held on May 14, 1998.
- 10(l) A written description of compensation for Directors of The Dow Chemical Company, incorporated by reference to the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company to be held on May 9, 2002.
- 10(m) A written description of the manner in which compensation is set for the Executive Officers of The Dow Chemical Company, incorporated by reference to the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company to be held on May 9, 2002.



- 10(n) A resolution adopted by the Board of Directors of The Dow Chemical Company on May 5, 1971, and most recently amended on July 9, 1998, describing the employee compensation program for decelerating Directors, incorporated by reference to Exhibit 10(p) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 1998.
- 10(o) The Dow Chemical Company Key Employee Insurance Program ("KEIP"), which provides benefits using insurance policies that replace benefits otherwise payable under The Dow Chemical Company Executive Supplemental Retirement Plan and Company-Paid Life Insurance Plan, incorporated by reference to the definitive Proxy Statement for the Annual Meeting of Stockholders of The Dow Chemical Company to be held on May 9, 2002.
- 10(p) The Dow Chemical Company Elective Deferral Plan as amended and restated as of January 1, 2001, incorporated by reference to Exhibit 10(r) to The Dow Chemical Company Annual Report on Form 10-K for the year ended December 31, 2000.
- 10(q) A copy of an employment agreement with Richard L. Manetta, Dow Corporate Vice President and General Counsel.
- 21 Subsidiaries of The Dow Chemical Company.
- 23(a) Independent Auditors' Consent and Report On Financial Statement Schedule.
- 23(b) Independent Auditors' Consent.

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