

1990 Annual Report

*Diverse People.
Common Goals.*



PLAINTIFF'S EXHIBIT

DOW-1502



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Dow manufactures and supplies more than 2,000 products and services, including chemicals and performance products, plastics, hydrocarbons and energy, and consumer specialties—which include agricultural products, pharmaceuticals and consumer products. The company operates 181 manufacturing sites in 32 countries, and employs 62,000 people around the world.

These people, from 11 different countries, are employed at Dow's Los Angeles Operations. They are (left to right):

Back Row: Augustin Perez (Mexico), Pedro Azamar (Mexico), Tim Watson (Great Britain), Yin Ko (People's Republic of China), Sione Tautuaa (Samoa).

Middle Row: John Matamoros (Ecuador), Shannon Bass (United States), Augusto Ipinza (Chile), Charlie Liu (Taiwan).

Front Row: Mino Lampa (Philippines), Lucille Rector (United States), Manny Santos (Philippines), Mien Nguyen-Ahms (South Vietnam), Mario Fuentes (Costa Rica).

Inside Back Cover

1	Financial Highlights
2	Letter to Stockholders
5	Diverse People. Common Goals.
20	Significant Events
22	Corporate Profile
23	Management's Discussion and Analysis
34	Responsibility for Financial Statements and Report of Independent Public Accountants
35	Consolidated Statement of Income
36	Consolidated Balance Sheet
38	Consolidated Statement of Stockholders' Equity
39	Consolidated Statement of Cash Flows
40	Summary of Significant Accounting Policies
41	Notes to Financial Statements
56	Eleven-Year Summary of Selected Financial Data
58	Product Segment Sales Analysis and Review of Market Price Per Share of Common Stock
59	Board of Directors
60	Corporate Organization
	Stockholder Reference Information

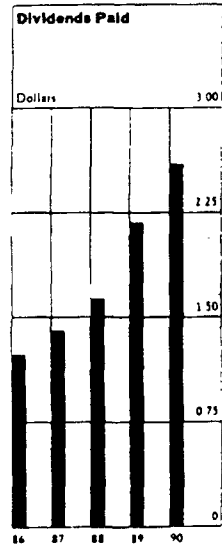
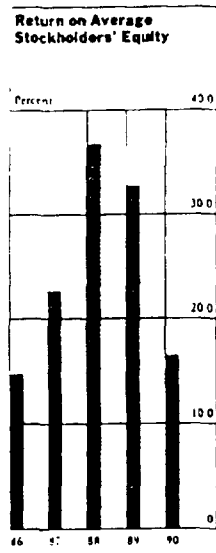
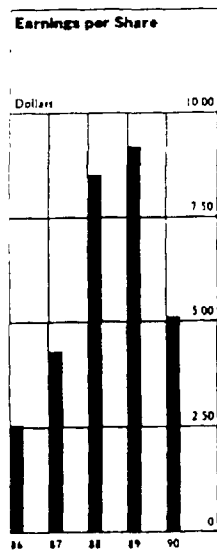
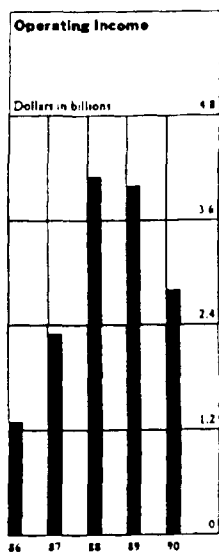
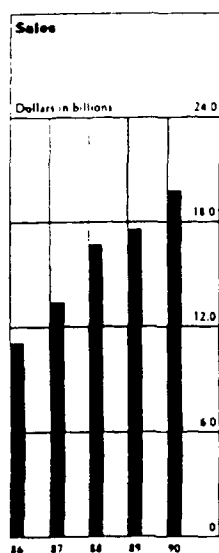
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HIGHLIGHTS OF 1990

The Dow Chemical Company and Subsidiaries

In millions, except as noted	1990	1989	% Change
Net sales	\$19,773	\$17,600	+12
Operating income	2,818	4,010	-30
Net income available for common stockholders	1,378	2,486	-45
Research and development	1,136	873	+30
Capital expenditures	2,119	1,756	+21
Depreciation	1,170	990	+18
Total taxes	1,570	1,907	-18
Wages, salaries and benefits	3,794	3,036	+25
Employees (<i>in thousands</i>)	62.1	62.1	-
Stockholders' equity (<i>at year-end</i>)	8,728	7,957	+10
Return on average stockholders' equity	16.5%	32.7%	-16 points
Average common shares outstanding	270	270	-
Net income per share (<i>in dollars</i>)	5.10	9.20	-45
Dividends paid per share (<i>in dollars</i>)	2.60	2.18	+19



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There's little comfort in the fact that 1990 set a record in sales and was Dow's third most profitable year. While we forecast a profit decline from the all-time records of 1988 and 1989, the magnitude of the downturn was greater than anticipated. The decline was attributable to industry overcapacity, soft demand, price pressures in the first half and the dramatic escalation of feedstock and energy costs resulting from the Mideast crisis in the second half.

On the positive side, a number of structural and operational programs were initiated that should serve us well in the climate of an equally challenging 1991. Particularly significant are the consolidations of Marion Laboratories and Elanco and programs to control costs, expenses, staffing levels, working capital and capital spending. Leadership in environmental, health and safety programs, innovation and quality performance was again very much in evidence at Dow.

The final results of your company for the year were lowered by a weakening global economy, compounded by a GNP decline in the U.S. for the fourth quarter. The weighted average GNP of the countries in which Dow does business fell from 2.5 percent growth in 1989 to less than 2 percent in 1990. Expectations are for another drop to 1.5 percent in 1991.

The combination of supply/demand-driven pricing declines in the first half with subsequent price increases to combat cost escalation netted an average price increase of 1 percent for the year. Manufacturing costs adjusted for volume increased 5 percent, which included 13 percent higher hydrocarbon feedstock and energy costs during 1990.

An expense control program initiated at the beginning of 1990 will help Dow manage its 1991 expenses at 1990 levels. We will have to compensate for inflation through increased productivity. That's a challenge for a company which already leads our industry in most productivity measures. Meeting such challenges is a Dow trait.

Volume increased 11 percent from 1989, in part due to the full consolidation of Marion Laboratories and Elanco in the Consumer Specialties segment. Excluding this segment, Dow volume increased 5 percent. Our operating rate was a healthy 90 percent, slipping just 2 percent from 1989.

Sales for the year increased 12 percent to \$19.8 billion. Operating income was \$2.8 billion, down 30 percent, and net income was \$1.4 billion, down 45 percent from the record set last year. Earnings per share were \$5.10.

Dow's debt to total capitalization level finished the year at 41.3 percent, below the level of 41.8 percent in 1989. Net interest expense increased almost \$200 million in 1990, primarily as a result of higher debt levels related to acquisitions in late 1989.

Outlook for 1991

All told, while lower than the two previous record years, Dow posted its third best year in a difficult business environment. Many of the same challenges face us in 1991.

Further slowing in the global economy, uncertainty in feedstock costs and increasing industry capacity in many of Dow's basic products will remain a challenge. Earnings from our basic products are likely to erode in 1991 due to weakening industry fundamentals. Our specialized products will partially offset this decline, however, through continued growth in industrial specialty products and fewer consolidation expenses in our expanding pharmaceuticals, agricultural and consumer products.

Just as we established and met our goal in the 1980s to diversify our business mix to an equal split between basics and specialties, we will continue to seek growth opportunities specific to our goals for the 1990s.

Our vision for Dow's product mix is a continued evolution to one of equal parts of basic chemicals and plastics, value-added industrial specialties, and consumer specialties,



Dow's Operating Committee (left to right): Andrew Butler, Frank Popoff, Joe Downey, Enrique Sosa, Bill Stavropoulos, Enrique Falla and Keith McKennon.

including pharmaceuticals, agricultural and consumer products. We expect to double sales in our specialties businesses in the 1990s while maintaining our traditional leadership position in basic chemicals and plastics.

Growth through diversification

We are taking the steps to provide solid growth. We have fully consolidated and at year-end owned 68.8 percent of Marion Merrell Dow, a pharmaceutical company. We also have a 60 percent stake in DowElanco, an agricultural products joint venture with Eli Lilly and Company. These new ventures bolstered 1990 results in the Consumer Specialties segment and are well positioned for growth during the 1990s.

Our less cyclical, value-added specialties should double in sales in the 1990s. Destec Energy, Inc., our energy subsidiary, is the largest independent producer of cogenerated power in the U.S. and posted sales of more than \$400 million in 1990.

As well as product diversification, Dow's geographic diversity should continue to serve us well in an environment of stronger overseas demand and a weak dollar. Last year, Dow's exports of \$1.34 billion, offset by imports of \$520 million, netted a favorable trade balance of \$820 million for the company. This speaks well for our products and the men and women who support them in a climate of escalating global competitiveness.

Just as important, we continue to divest nonstrategic businesses and close redundant facilities. In 1990, for example, Dow sold CD Medical, a medical equipment manufacturer, and has indicated its intent to divest its oil and gas holdings in Canada. Additionally, we announced the closing of the chlorine facility in Canada during 1991 and the phase-out of our chlorine and derivatives facilities in California.

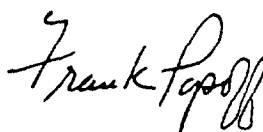
Last year we devoted our annual report to the environment—an issue important to all of us. Our commitment to continually improve our environmental, health and safety performance, improve communications and to be an industry leader continues. A key initiative is Responsible Care, a unique chemical industry plan that sets industry-wide codes of practice to improve our performance individually and collectively.

Global success

Dow is well prepared to succeed in our evolving and increasingly borderless global marketplace. We have excellent operations in place around the world that provide combined strengths in research and development, production, marketing, sales, distribution and a host of other capabilities.

The most important links, however, are those that unite us as people. We share a sense of individual responsibility and a recognition of the value of teamwork. Innovation is a constant goal, and quality, a way of life. Our concern for the environment matches our commitment to the communities in which we operate.

These traits define and distinguish us—bring us together and set us apart. And because they are critical to our success, they are featured in this report. Taken together, they help explain how we will meet the tests of the challenging times ahead and continue our long tradition of quality, growth and profitability.



Frank Popoff

February 13, 1991

Diverse People. Common Goals.

Like most companies, Dow has a unique set of attributes and people that define its character and distinguish it from other organizations.

One quality is our historical broad base of more than 2,000 products that are produced around the globe. Our customers range from some of the world's largest and best-known corporations to individual consumers.

Today, Dow's diversity is mirrored in the nationalities, races, ages, cultures, experience and skills of the men and women who work here. Yet for all their differences, the people of Dow have much in common. They share a high degree of individual initiative, as well as a strong sense of teamwork. They emphasize quality and the environment. New ideas are welcomed throughout the organization.



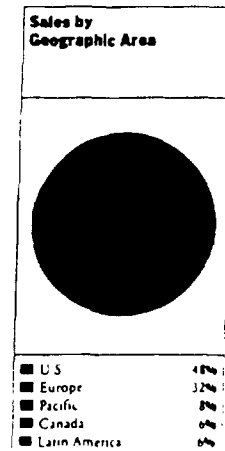
These people and qualities are important to us, and to our customers and neighbors around the world. They are part of our culture and the foundation for our future. Together, they define who we are and what we will be.

A Global Perspective

Dow's trademark is a diamond, but it could just as easily be a globe. We're not simply a U.S. company that sells its products worldwide, but an international company headquartered in the U.S. It's a subtle, yet critical distinction and one that offers enormous benefits as the world continues to evolve toward a borderless market.

In fact, we've been a global company longer than many firms have been in business. Manufacturing operations outside of the U.S. began in Canada in the 1940s, and we established our first European manufacturing facilities in the early 1950s. While many companies are only now exploring "new" opportunities in Eastern Europe and the Pacific Rim, Dow has been active in both markets for more than 25 years.

Today, about half of Dow's sales, assets and people are located outside of the U.S. Our 315 sales offices and nearly 200 manufacturing sites are spread across 32 countries.



Close to customer. Dow business development manager Herbert Knothe (right) visits Dr. Essbach at a local hospital in Chemnitz, Germany, where Roofmate insulation was installed. A life-long resident of what was East Germany, Knothe joined Dow in 1976, the same year Dow became the first U.S. company to open an office in Berlin.

Even more important, we're at home in every one of them. Nationals manage most local operations—in Latin America, for example, 99 percent of all management positions are filled by Latin Americans. Strong local management means faster responses to continuously changing markets. And by combining that strength with the ability to implement uniform worldwide standards, we support global economic development and assure environmental protection.

With an international infrastructure, we also have the resources to pursue new opportunities, wherever they might arise—or lead. Polyurethane products, for example—

one of our 48 major plastic product lines—are manufactured at 20 plants in 13 countries and distributed through 29 terminals worldwide, putting us in reach of every major and emerging market.

Our global search for knowledge, skill and inspiration also extends to joint ventures with well-respected partners. Dow has a long history of such strategic alliances dating to the early 1940s when Dow Corning Corporation was established to make silicone products. Five of the six joint ventures established in 1990 were in the Pacific Rim. These organizations offer benefits ranging from faster entry into new geographic markets to achieving the critical mass necessary to compete successfully in a particular business. In all, the company has 53 joint ventures in more than two dozen countries.

The benefits of globalization range from reduced reliance on any one nation's economic performance to access to gifted researchers throughout the world. With global markets, we can afford large-scale investments for cost effective production and lower costs to customers.



Global partners. Apiporn Pasawat (right), managing director of Thai Polyethylene Company, and Andrew Liveris, general manager of Dow Chemical Thailand, work together through Pacific Plastics (Thailand) Limited, a well-established joint venture, and two new joint ventures formed in 1990 called Siam Styrene Monomer Company and Siam Synthetic Latex Company.

Quality Performance

Like many companies today—including a number of our customers—we've learned the importance of quality. It begins with a commitment to continuous improvement. This commitment is delivering real results. Since 1986, for example, the facility producing Verdict herbicide in Midland, Michigan, has trained 70 people—93 percent of its work force—in our Quality Performance process. In the same period, yields were increased 30 percent, waste was reduced 50 percent and unit costs were cut by more than half. What's more, the improvements are continuing.

We recognize that to succeed, the commitment to quality must involve everyone, at every level of the company. Last fall, senior executives in the U.S. went on the road to explain their goals and report on the company's performance to more than 5,000 people. After the executives spoke, they listened—to more than 80 quality success stories presented by teams of office professionals, information systems personnel, manufacturing employees and others.

The key message in all of these communications efforts is the importance of personal involvement. The success of our suggestion programs demonstrates the message is being heard. Our Louisiana Division, for example, received 370 suggestions in 1990 under a program named "Operation Upswing." More than 150 of the ideas have already been adopted for a combined savings of some \$3.2 million.

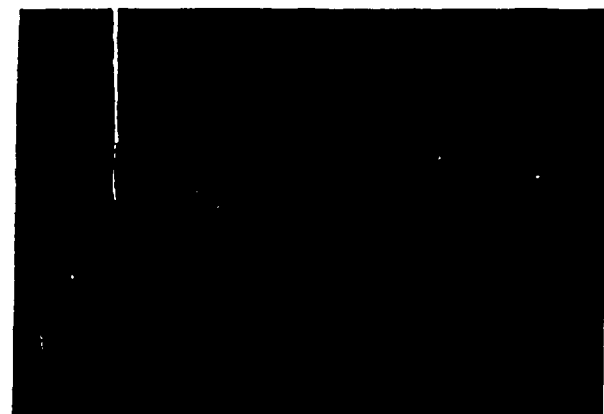
Quality is no longer an inspector's job; it is everyone's responsibility, every day. It is practiced throughout the organization, and in thousands of ways. For example, when Jimmy Goble, a senior technician in Dalton, Georgia, noted that no order had been received from a customer who normally ordered latex daily, he loaded a truck just in case. When the customer was contacted and did need

the shipment, Dow—thanks to Goble—was able to deliver it on time.

A multi-function team at Dow Australia's latex/epoxy plant invested countless hours designing, implementing, monitoring and, when necessary, improving quality management systems to meet the requirements of ISO 9002, a well-established international quality standard. Their efforts were rewarded when they received accreditation as a "Quality Endorsed Company."

Quality Performance is delivering another result: reduced costs. At our Rheinmünster, Germany site, the steps required to produce Derakane resin have been cut from five to two, reducing production time by 28 percent and substantially improving operating margins.

The ultimate objective of Quality Performance, however, is greater success for our customers. That's why the quality awards we receive from them are of such great importance. In 1990, our global operations earned more than 110 customer quality awards. Continuous improvement brings continued improvement in our relationships with customers.



Continuous improvement. Using tools learned in a Quality Performance workshop, Fran Comeaux (left) and René Guerin, members of Dow's Louisiana Technical Services office professionals' team, helped improve communications. Their work included a new employee orientation packet, a more efficient routing method, and the use of an electronic mail system.



A fine pickle. Late one afternoon, Diane Papa (left), a Dow account representative, learned that Vlastic Foods, Inc. had run out of Dowflake process grade calcium chloride, an essential ingredient in its pickling process. She had 10 bags shipped overnight so Vlastic could continue production. Here, Jim Griffith, plant manager at Vlastic's Greenville, Mississippi, plant, shows Papa the inspection area.

Environmental Commitment

In our 1989 annual report, we said the environment was the single most important issue facing the company, and we pledged continued progress.

In 1990, we kept that promise.

We pledged to further reduce emissions, and we did. Already cut in half since 1985, air emissions in the U.S. were reduced an estimated 10 percent in 1990, and we set a goal to reduce another 50 percent by 1995 (from a 1988 baseline). We also invested more than \$185 million in equipment and facilities to improve the environment.

We committed to establishing a major conservation program, and formed "Conservation 2000," a global rededication to environmental protection. As part of this program, we eliminated fully halogenated chlorofluorocarbons (CFCs) from all Pelaspan-Pac polystyrene and Ethafoam polyethylene foam products, and from approximately 75 percent of all Styrofoam brand insulation, resulting in a 95 percent reduction in ozone depletion potential. Fully halogenated CFCs will be eliminated from the remaining 25 percent of Styrofoam brand products by 1993.

After already working to restore more than 60,000 acres of endangered wetlands, we

continued the progress in 1990 by forming a four-year "Partnership for Wetlands Conservation" with Ducks Unlimited Inc., The Nature Conservancy, and the National Fish and Wildlife Foundation. Dow will contribute \$3 million to benefit the North American Waterfowl Management Plan.

We made a commitment to initiate new programs for plastics recycling and established a research and development group dedicated to finding new uses for recycled plastics. We launched Recycle This!, an environmental education program which has informed more than 85,000 students in 57 cities about recycling. The National Poly-

styrene Recycling Company, which Dow helped form, opened a new recycling plant in 1990 and will build three others by May 1991, for a total of seven plants with a combined capacity to produce 55 million pounds of recycled polystyrene resin annually.

We committed to greater external involvement in Dow's environmental activities and formed community advisory panels throughout North America to discuss issues ranging from emergency preparedness to emissions reduction. And we're working even more closely with customers to ensure the safe handling, use and disposal of chemicals.

We're just as active within our operations. At our European headquarters in Horgen, Switzerland, containers for recycling plastics, paper and batteries have been installed on every floor. In Australia, more than 46,000 native trees planted by Dow are being irrigated with treated water from our manufacturing plant, reducing the plant's waste water discharge to zero while improving the environment.

This work is important, but we recognize that even more needs to be done. The promise is renewed: our commitment will continue.



Recycling in The Great Smoky Mountains. John Larch (left) and Jack Davis, Cherokee Boys Club, Inc. employees, contribute to the effort. Since Dow, Huntsman Chemical and the U.S. Department of the Interior announced a partnership in April 1990, more than 50 tons of plastic, glass and aluminum have been recycled from four of the country's national parks.



Cleaning up. Members of the Everest Environmental Expedition load yaks with trash removed from Mount Everest. A grant from Dow helped fund the expedition's July 1990 clean-up of more than a ton of trash from the world's highest mountain.

A Continuing Quest for Innovation

“If you can't do it better, why do it?” said Herbert Dow, shortly after founding the company that bears his name. That drive to make things better—to improve our products, applications and processes—remains an operating philosophy today.

Research and Development at Dow is extensive, global and close to customers. Roughly one out of seven Dow employees—8,600 people in all—are members of Dow's worldwide R&D community. Our 30 research centers are located near manufacturing sites and customers so ideas circulate freely among labs, plants and markets.

During 1990, Dow invested \$1.1 billion in R&D, roughly 5.8 percent of its total sales—well above the industry average. But the returns from this investment in our future will be even greater. Our 1990 returns included more than 400 U.S. and 1,500 international patents.

Advanced composite materials are an area of particular focus and one recent invention is a plastic called polymeric reflective material (PRM). PRM is a reflective plastic sheet containing no metal, which can be made into parts that look like chrome. PRM will not corrode and, compared to metal, offers customers lower capital costs, less tooling and secondary processing, and fewer process disposal problems. Potential applications include lighting, consumer products and automotive trim.

Energy Technologies

Inside our operations, we've concentrated on conserving energy. During the past 20 years, we've reduced the energy required to produce major petrochemicals and plastics by 55 percent. Plants under construction will offer further reductions of 30 to 40 percent, and we continually upgrade our existing operations. At our site in Stade, Germany, we've introduced 13 new technologies, including efficient gas turbines that produce 40 percent more power while using 13 percent less natural gas. Energy savings total nearly \$12 million annually.

A 15-year research project—the largest in Dow's history—has culminated in a proprietary coal gasification technology. Our subsidiary, Destec Energy, Inc., the largest independent power company in the U.S., is operating a commercial-scale plant that uses the technology in Louisiana. The facility takes 2,400 tons of coal per day, converts it into synthetic gas, removes the sulfur and burns the gas to produce power. Destec and Dow have received a number of awards for the environmental benefits and energy efficiency of the process.

With a steady stream of new products and processes, and the continual refinement of current operations, we're still following Dr. Dow's principle today. In doing so, we're improving our ability to meet customers' requirements faster and more efficiently. In our quest for innovation, it's customers who succeed.



Achiever. Sally Ginter, a laboratory director in Chemicals and Performance Products, is Dow's top woman patent-holder, with 23 patents for products and applications ranging from polymers to flame retardant chemicals. Based on a study conducted by the U.S. Patent and Trademark Office, Dow has the most female patentees of any U.S. corporation.



Pain relief. Using a robotics arm, Dow biologist Connie Shackley transfers a vial in a lead-shielded isolator. Dow researchers are developing radiopharmaceuticals for the relief of pain associated with metastatic bone cancer. Application to the U.S. Food and Drug Administration is expected in 1992.

Counting on the Individual

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When we say our most important assets are our 62,080 employees, it has special meaning: They are widely regarded as being among the world's most productive workers.

Such performance is no coincidence. It begins with the selection process. Recruiting is a high priority, with strong emphasis placed not only on technical skills, but also the individual's initiative and sense of teamwork. What's more, Dow attracts an excellent pool of candidates. *Graduate Engineer* and *Working Mother* magazines, as well as the National Society of Black Engineers, have consistently ranked Dow as among the best places to work.

The skills and education that people bring to Dow are augmented by training and development that continues throughout their careers. This ongoing process, called Investing in People, is especially important today, as advances in technology and the work environment call for new ways of thinking and working. Training curricula designed to help people meet the future have been developed for nearly every job function.

Every geographic area has increased its attention to employee development. On average, our employees will spend more than a week each year in formal training. These efforts are complemented by company-paid courses at colleges and universities.

Freedom to Act

Effective, timely training is especially important when you have the power to act. Dow people do. While strategies are set on a global basis, local operations decide how to implement them. We encourage making decisions at the lowest possible level to assure faster, more credible responses to ever-changing conditions. Customers can get an answer quickly. Dow representatives commit Dow's resources and reputation on their own authority.

This freedom to act is reflected in our compensation and promotion policies as well. Dow's policy is to hire at the entry level and promote those who excel from within the organization. We've learned that the best training is to give employees a challenging assignment and the authority to get the job done.

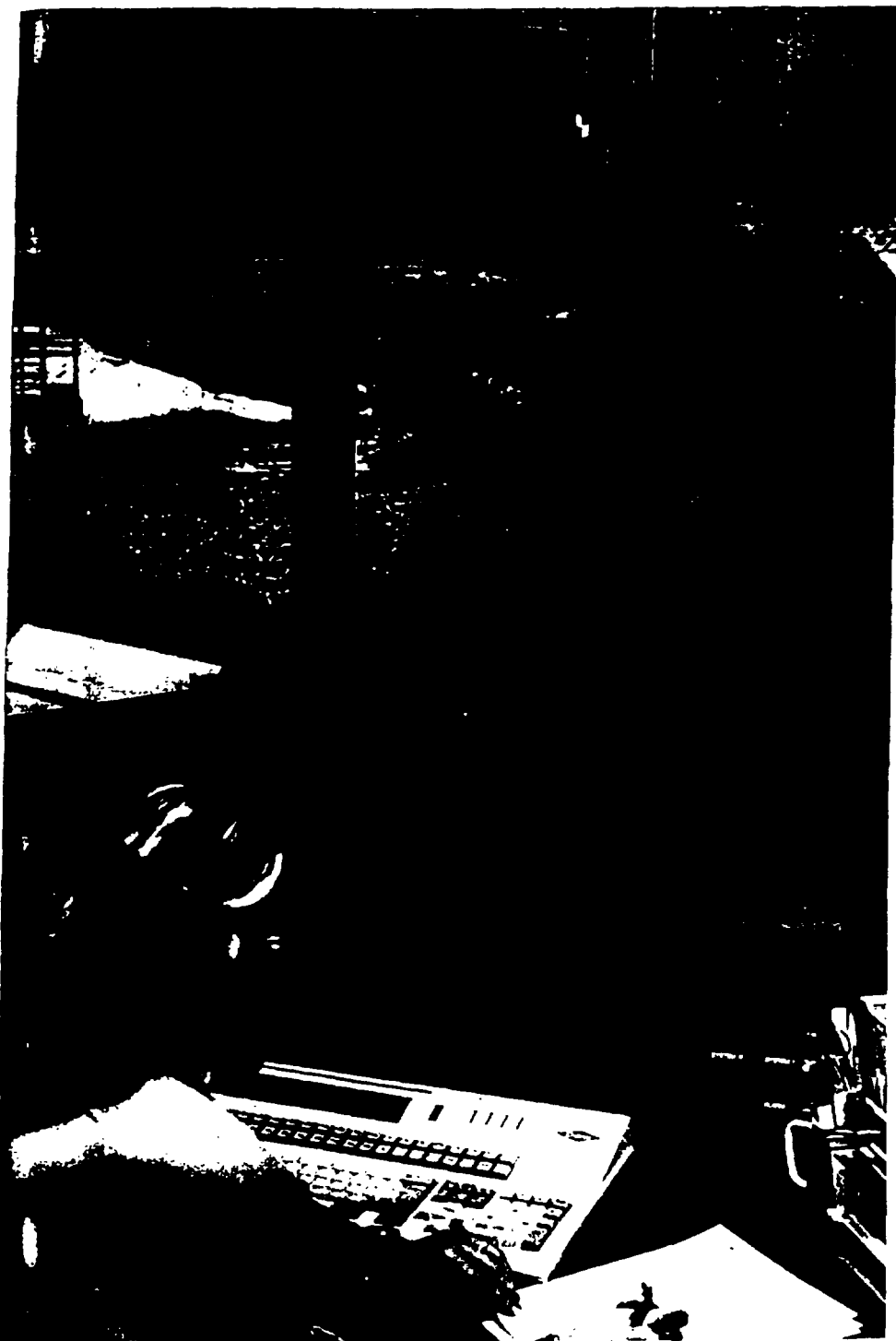
We encourage the development of new skills and careers. In 1975, Maria Lee started at Dow as a secretary in our Hong Kong office. Today, she is our leading salesperson in the People's Republic of China, handling accounts that total \$28 million. As our people develop, so does the company itself—and our ability to better serve customers.

"Employees are the source of Dow's success. We treat them with respect, promote teamwork, and encourage personal freedom and growth. Excellence in performance is sought and rewarded."

Statement from Dow's Core Values



In touch. Don Brooks, Dow senior account sales manager, calls on Syncrude Canada Limited, a large Dow customer located more than 500 miles north of Calgary in Alberta, Canada. Syncrude is the world's largest producer of synthetic crude oil and produces 10 percent of Canada's crude oil needs.



High finance. From offices overlooking Lake Zurich in Horgen, Switzerland, Dow foreign exchange manager Anne Wyss manages millions of dollars in daily transactions that span the globe—and the clock.

Winning Through Teamwork

Our people speak dozens of languages and work in 61 countries, but for all their differences, Dow people everywhere share some common values. A commitment to safety, the environment and quality performance are woven into the fabric of the organization. Effective teamwork unites individual efforts and gives them greater impact.

There are solid grounds for this common philosophy. Worldwide, our facilities are typically located in smaller towns and cities, so employees are close to their communities and well aware of their responsibilities to their neighbors and friends. And because many employees are shareholders, they have a personal incentive to improve company performance.

These values strengthen over long careers. Dow employees work with the company an average of 14 years, the average tenure of the corporate management committee is 27 years. Many employees at every level—and throughout the world—devote their entire careers to Dow.

This shared experience fosters teamwork—and teamwork is the foundation of many of

Dow's most successful efforts, including its technology centers, which are located throughout the world.

Technology centers were established in 1965 to ensure that all of our technology, resources and expertise would be applied optimally among all manufacturing sites around the world. Today, there are 42 centers with a combined annual budget of \$25 million. The technology implementation teams marshal all available resources, eliminating wasted effort while also developing uniform worldwide standards.

A similar approach is used in our T.I.M.E. database, a worldwide computerized information system that con-



Global teamwork. To meet customers' global needs, Dow's electronics business team includes employees from Japan, Europe and the U.S. Team member Tatsuo Nishimura (second from right), electronics market development manager, and Yutaka Maehara (center), a thermoplastics development chemist, discuss a test requested by an electronics manufacturer with several colleagues at Dow's Gotemba Laboratory in Japan.

tains listings for nearly 4,000 materials, reviewing each one from Toxicology, Industrial hygiene, Medical and Environmental perspectives. Employees around the world contribute to the data and draw upon it as well, pooling their knowledge and expertise.

Teams are at work in every area. Last April, an international marine distribution team negotiated a contract with a major marine carrier. Dow representatives from the U.S., New Zealand and Australia worked together. The result? Negotiation time was slashed from several weeks to two days, consistent contracts were developed, and because total shipping volumes were considered, proposed rate increases were cut more than 50 percent.

This team approach also extends to our customers, our communities and the public at-large. Identifying and pursuing common goals has proven successful in initiatives ranging from education to the environment. For if one thing is clear, it is that success is a team effort. And the best team always wins.



In training, Dow and the community fire brigade in Rheinmünster, Germany, meet together regularly to discuss safety measures and practice emergency drills. Reviewing protective clothing requirements are Dow safety/security manager Hans-Dieter Wojtkowiak (wearing orange hard hat); and Franz Meier, commander of the Dow fire brigade (white hard hat). Community officials also participate; Rheinmünster mayor Klaus Droll is second from right.

Community Involvement

Community involvement is more than an expression of corporate ideals; it is a sound business practice. To contribute to education, health care and social services is to invest in a more productive work force, stronger markets and greater long-term growth.

Because much of our work relies on science and technology—and well-trained scientists and engineers—Dow has a special interest in education. During 1990, education programs received more than half of all corporate contributions—\$10 million of almost \$18 million.

Many Dow sites around the world are active in this process. Dow Europe is sponsoring students in a master's degree program in environmental economics at the University College of London. In Dow Canada, all locations and functions are involved in educating youth by donating equipment and services, hosting plant tours or awarding scholarships for outstanding science students. In Dow U.S.A., the Louisiana Division makes a yearly grant to a local high school for use in developing new approaches to education. This year's recipient is using the contribution for mathematics and science classes via an interactive

satellite network. Texas Operations, with the help of 300 Dow personnel, formed a partnership with local schools to create interest in educational skills and provide information on career opportunities, reaching more than 6,000 students.

Community involvement also means identifying needs and filling them. One example is our support of the Corporate Angel Network, which transports cancer patients to distant treatment centers. Since 1983, our aircraft have completed more than 200 such flights. And in Stockley Park, England, Dow joined with a local charity to make life easier for the disabled by providing a specially designed



Good neighbors. Neide Bandeira Fernandes (left), a Dow nurse, teaches villagers about personal hygiene and other good health habits. Employees at Dow's Aratu, Brazil site, helped residents of Caboto, a nearby fishing village, install septic tanks and a sewage water transport system.

canal boat with an access ramp, an electric lift and widened passageways.

Many Dow people and locations worldwide volunteer time and talent to make their communities better places in which to live. In 1985, we created an award program to recognize some of these efforts in the U.S. Since then, more than 1,000 Dow employees, retirees and locations have been recognized for outstanding acts of community service.

We also contribute to the quality of life with our products and services. By developing a new surface for plastic medical products, we help reduce the risk of blood clots so patients can recover faster. Our Chemicals and Performance Products Department's ChemAware service has helped more than 450 chlor-alkali and specialty solvents customers reduce emissions and waste, and learn to handle chemicals more safely.

We're proud of contributions like these and especially of the Dow people who commit personal time to such efforts. We think we're making the world a better place. And Dow a better investment.



New lease on life. Since Dow began its Take Initiative Program on Transplantation in 1986, the number of black organ donors in the U.S. has doubled. Kidney recipient Ronald Norris (with his wife, Davina and son, Donnell) appreciates the need for education; blacks have a higher incidence of kidney failure than other racial groups.

A Personal Commitment

Dow people have a long history of giving time, talent and treasure to local communities, dating back to our founder, Herbert Dow. That philosophy is shared today by the many foundations established by the Dow family, Dow employees and retirees, and Dow-affiliated companies.

For example, the Ewing Marion Kauffman Foundation, with the support of Marion Merrell Dow Inc., is providing a brighter

future for underprivileged students through Project Choice, an education and scholarship program. High school students, along with their parents, sign contracts to attend classes, graduate and take part in special assistance programs, as well as avoid early parenthood, alcohol and drug abuse. Those who are successful receive a free college or technical education. A total of 550 students have enrolled since April 1988.

Significant Events

January

Business Week magazine named Dow one of 10 companies that made the best acquisitions during the 1980s. The primary criterion was whether the surviving company gained a strategic benefit from the deal and has improved performance.

DowElanco unveiled a unique corporate logo, name and theme to create an identity and an awareness of company goals in the marketplace.

Dow was ranked the 14th most-admired corporation in the U.S. by *Fortune* magazine's 1990 study of "America's Most Admired Companies." The rating was based on a survey of 8,000 senior executives, outside directors and financial analysts.

Dow and its wholly owned subsidiary, Destec Energy, Inc., received recognition from several major energy industry groups, including the Electric Power Research Institute and the Council on Alternative Fuels, for the development and implementation of an advanced coal gasification technology. In addition, *Power* magazine named the process among its 1989 Industrial Energy Conservation and Environmental Protection Award winners.

William Nunn Lipscomb, Jr., a member of Dow's Board of Directors since 1982, retired from his position upon reaching the Board's mandatory retirement age of 70 for outside directors.

Joseph L. Downey, Dow vice president, was elected to the Finance and Public Interest committees of Dow's Board of Directors. Downey is chairman of DowBrands Inc. and of DowElanco. He also has responsibility for the global Agricultural and Consumer Products businesses, Dow Pacific and Information Systems.

February

The Dow Board of Directors announced a quarterly dividend of \$.65 per share.

Dow signed an agreement with Lucky Limited to form a 50/50 joint venture to manufacture, sell and provide technical service for epoxy resins in Korea.

Fred P. Conson was named Dow's director of Research and Development. Irving G. Snyder was named director of Research and Development for Dow U.S.A., and Robert M. Nowak was named Chief Scientist for the company.

Robert McFedries was named chairman and chief executive officer of Destec Energy, Inc. Charles F. Goff was named president and chief operating officer.

David B. Sharrock, executive vice president of Marion Merrell Dow Inc., was named chief operating officer of that company.

April

Dow announced it would purchase an additional 4 million shares of Marion Merrell Dow Inc. stock over a period of time on the open market or in private transactions. At the time, Dow owned 186.3 million shares of that stock.

Dow, the U.S. Department of the Interior and Huntsman Chemical Corporation announced a "Partnership for the National Parks" program which will enable more than 15 million park visitors to recycle their plastic, glass and aluminum.

The National Environmental Development Association (NEDA) named Dow to its Earth Day Honor Roll in recognition of Dow's Waste Reduction Always Pays (WRAP) program. Dow was one of 10 corporations honored by NEDA, an association of businesses, labor unions and other private-sector members which addresses various environmental, economic and energy concerns.

May

The Dow Board of Directors announced a quarterly dividend of \$.65 per share.

David T. Buzzelli, president of Dow Canada, was appointed to the newly created position of vice president and corporate director of Environment, Health and Safety. Organizations reporting to Buzzelli include Health and Environmental Sciences, Corporate Medical and Corporate Safety, Environmental Affairs, and Security and Loss Prevention.

Denis Wilcock, executive vice president of Dow Europe, was named president and chief executive officer of Dow Canada. In addition, he joined the Dow Management Committee. A Dow employee since 1965, Wilcock was named director of Dow Europe Research and Development in 1980, and vice president of Dow Europe in 1985.

Yves Bobillier, president of Dow Latin America, was named executive vice president of Dow Europe with responsibility for the Plastics Group. He continues as a member of the Dow Management Committee. Bobillier, who joined Dow in 1969, was named president of Dow Latin America in 1985. His responsibilities were broadened to include Dow Brazil in 1987.

Ernesto Ramon, president of Dow Brazil, was appointed president of Dow Latin America. He continues as a member of the Dow Management Committee. Ramon, who joined Dow in 1963, was named vice president and general manager of the Industrial Products Division of Dow Brazil in 1984, and president of Dow Brazil in 1987.

Oscar Novo, commercial vice president for Plastics, Hydrocarbons, and Chemicals and Performance Products for Dow Latin America, was appointed president of Dow Brazil. He also joined the Dow Management Committee. A Dow employee since 1961, Novo was named Latin America Area director of sales in 1982, and later that year was named a vice president. He became commercial vice president in 1987.

Six members of Dow's Board of Directors were elected at the 93rd annual stockholders' meeting in Midland, Michigan. Elected to serve three-year terms were Herbert H. Dow, Joseph L. Downey, William J. Neely, Paul F. Orefice, Donald A. Rikard and Harold T. Shapiro.

Continuing as directors are Bernard B. Butcher, Andrew J. Butler, Willie D. Davis, Michael L. Dow, Enrique C. Falla, Barbara H. Franklin, Hunter W. Henry, Robert M. Keil, Keith R. McKennon, Frank P. Popoff and Joseph G. Temple, Jr.

David P. Sheetz, a member of Dow's Board of Directors and former Chief Scientist, retired from the Board. A Dow employee since 1952, Sheetz was a senior vice president.

Dow announced a new four-year "Partnership for Wetlands Conservation" with Ducks Unlimited Inc., The Nature Conservancy and the National Fish and Wildlife Foundation. Dow later presented the partners with the first installment of a \$3 million contribution for wetlands protection and restoration.

Dow and CommTech International signed an agreement giving Dow exclusive worldwide rights to manufacture and sell polybenzoxazole (PBZ) polymers.

June

Dow and BASF announced a tolling agreement in principle for Dow to receive 400 million pounds of ethylene annually from a BASF plant to be built in Belgium by 1993.

Dow Europe confirmed its intention to build a new 200 million pound polystyrene production line at its site in Belgium by 1992.

A U.S. Patent and Trademark Office study showed Dow, with 354 patents granted to women scientists and inventors between 1977 and 1988, has the highest number of female patentees of any corporation receiving U.S. patents.

Frank Popoff was elected vice chairman of the board of the Chemical Manufacturer's Association.

July

Throughout its U.S. manufacturing facilities, Dow achieved a 13 percent overall reduction in Superfund Amendments & Reauthorization Act (SARA) emissions in 1989. This included an 11 percent reduction in air emissions, a 22 percent reduction in losses to water, and a 35 percent reduction in losses to land. Since 1987, the first year companies were required to report SARA data, Dow has reduced emissions by a total of 21 percent, and has committed to reduce an additional 50 percent by 1995.

Enrique J. Sosa and William S. Stavropoulos were elected to Dow's Board of Directors. Sosa joined Dow in 1964, became commercial vice president for Specialty Chemicals in 1985, and was named group vice president in 1987. Stavropoulos joined the company in 1967 and became commercial vice president for the U.S. Area's Basics business in 1985. He was named group vice president in 1987

and acquired additional duties as chairman and chief executive officer of Essex Chemical Corporation, a Dow subsidiary, in 1988.

August

August 15 was declared "Honoring Herbert H. Dow Day," marking the 100th anniversary of the founder's arrival in Midland, Michigan.

September

The Dow Board of Directors announced a quarterly dividend of \$.65 per share.

Keith R. McKennon, president of Dow U.S.A. and an executive vice president, was named executive vice president, Technology, for Dow. McKennon was given responsibility for ensuring that Dow's product, process and manufacturing technologies keep the company at the forefront of chemical technological excellence. He remains on the Executive, Finance and Public Interest committees of the Board of Directors, and on the Operating and Management committees of Dow.

William S. Stavropoulos, group vice president for Plastics and Hydrocarbons, Dow U.S.A., was named president of Dow U.S.A. He also was elected a vice president of Dow by the Board of Directors and will serve on the Finance and Public Interest committees of the Board. In addition, Stavropoulos will become a member of the Dow Operating Committee and continue as a member of the Management Committee.

Enrique J. Sosa, group vice president for Chemicals and Performance Products, Dow U.S.A., was named director of the Corporate Product Department. In addition, he will chair the Chemicals and Performance Products and the Plastics Global Strategy Boards. Sosa also was elected a vice president of Dow by the Board of Directors and will serve on the Investment Policy and the Environment, Health and Safety committees of the Board. He will become a member of the Dow Operating Committee and continue as a member of the Management Committee.

Bernard B. Butcher, vice president of Dow, announced he would relinquish management responsibilities in accordance with the deceleration policy applicable to employee directors. He will serve as a senior consultant to Dow and continue as a member of the Board of Directors.

Charles T. Marck, vice president and director of Government Relations, Dow U.S.A., was elected a corporate vice president by Dow's Board of Directors.

Dow and eight other companies reached an agreement with the Environmental Protection Agency to make significant voluntary reductions in toxic air emissions by 1994. Under the agreement, Dow pledged to cut toxic air emissions at six of its U.S. plants by 71 percent. The agreement is part of Dow U.S.A.'s commitment to reduce overall emissions by 50 percent (based on 1988 data) by 1995.

Dow acquired 100 percent of the operating shares of AWD Technologies, Inc., an environmental service company. Previously, AWD was a tri-venture between Dow, Woodward-Clyde Consultants and the Guy F. Atkinson Company.

October

J. Pedro Reinhard, Dow treasurer, was named a corporate vice president by the Board of Directors. He became treasurer in 1988, and was appointed to the Corporate Management Committee in 1989. Reinhard also serves as an ex-officio member of both the Finance and Investment Policy committees of the Board.

Althin Medical AB of Sweden signed an agreement with Dow to acquire 100 percent of the shares of CD Medical, Inc., a wholly owned subsidiary of Dow.

Dow Europe signed a letter of intent with the Otto Group in Germany to recycle plastics from the consumer and commercial waste stream. Under the agreement, Dow will be responsible for the technology involved in upgrading the recycled material and for finding commercial outlets.

DowBrands Inc., a Dow subsidiary, added Summerfield's brand premium vine-ripened tomatoes to its consumer products line. Currently being test marketed, Summerfield's is scheduled for national distribution in 1994.

November

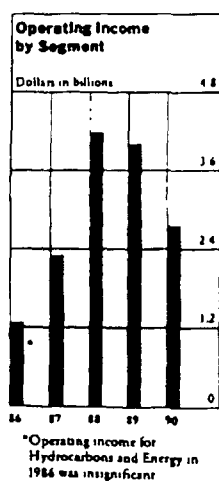
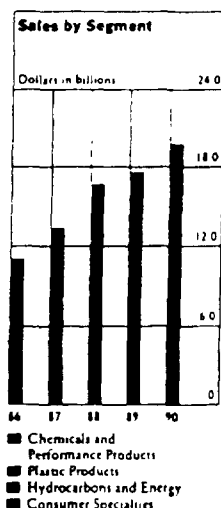
The Dow Board of Directors announced a quarterly dividend of \$.65 per share.

December

Dow announced the sale of its business in Lightguard brand insulation to FinPan, Inc., a concrete panel manufacturer based in Ohio.

Corporate Profile

Dow manufactures and supplies more than 2,000 products including chemicals and performance products, plastics, hydrocarbons and energy, and consumer specialties.



Description

Chemicals and Performance Products

A wide range of products used primarily as raw materials in the manufacture of customer products, or which aid in the processing of customer products and services. Markets

served include the chemical processing, pulp and paper, personal care, pharmaceutical, process foods and utilities industries.

Key Products and Services Include:

Chemicals and Metals

Chlorinated solvents, chlorine, ethylenamines, magnesium metal, calcium chloride, propylene and ethylene glycols, vinyl chloride, caustic soda, propylene oxide.

Performance Products

Dow latex coatings and binders, Dowex ion exchange resins, Drytech superabsorbents, Filmtec membranes, Gas/Spec separation technologies, Methocel and Ethocel cellulosic products.

Plastic Products

Dow ranks among the world leaders in the production of plastics, offering the broadest range of thermoplastic and thermoset materials of any manufacturer. Dow plastics and plastic fabricated products are used in a

wide variety of applications in markets including packaging, automotive, electronics, appliances, building and construction, housewares, recreation, furniture, flooring and health care.

Thermoplastics

Styron polystyrene resins; Dowlex polyethylenes; HDPE; LDPE; Calibre polycarbonate, Magnum ABS and Pulse engineering resins; Primacor adhesive polymers; Tyrin CPE elastomers.

Thermosets

Propylene oxide; Spectrum reaction moldable polyurethane; MDI, TDI and

polyols; Tactix and Quatrex high performance epoxies; Dow epoxy resins, epoxy novolacs and curing agents; Derakane vinyl ester resins.

Fabricated Products

Styrofoam brand plastic products; Trymer rigid foam billets; packaging foams; Opticite label films; adhesive and plastic films.

Consumer Specialties

This segment is composed of three businesses—agricultural products, pharmaceuticals and consumer products. Agricultural products are used in crop protection and production, and for industrial

pest control. Pharmaceuticals include prescription drugs and over-the-counter health care products. Consumer products applications include household products and personal care.

Agricultural Products

Starane, Treflan and phenoxy herbicides; Telone soil fumigant; Dursban and Lorsban insecticides.

Pharmaceuticals

Prescription Products: Cardizem cardiovascular products, Seldane antihistamine, Carafate anti-ulcer, Nicorette smoking cessation aid.

Over-The-Counter Products: Cepacol oral hygiene products, Gaviscon antacid, Os-Cal calcium supplements.

Consumer Products

Ziploc plastic bags; Saran Wrap and Handi-Wrap plastic films; Spray 'n Wash stain remover; Fantastik all-purpose and Dow bathroom cleaners; Perma Soft and Style hair care products.

Hydrocarbons and Energy

Dow is the world leader in the production of olefins, styrene and aromatics. This segment encompasses procurement of fuels and petroleum-based raw materials—and pro-

duction of olefins, aromatics, styrene and cogenerated power and steam—for use in manufacturing Dow's plastics, chemicals and metals.

Hydrocarbons

Ethylene, propylene, butadiene, benzene and styrene.

Energy

Power, steam, coal gasification technology and independent power project development.

Unallocated

This segment encompasses Dow's businesses that are not reported elsewhere, including the consolidated insurance and

credit companies, as well as overhead cost variances not allocated to other segments.

This segment includes non-product related activities.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The Dow Chemical Company and Subsidiaries

Results of Operations

Sales were \$19.8, \$17.6 and \$16.7 billion for 1990, 1989 and 1988, respectively.

Operating income for the same periods was \$2.8, \$4.0 and \$4.0 billion. Net income available for common stockholders and earnings per share were \$1,378 million or \$5.10 in 1990; \$2,486 million or \$9.20 per share in 1989; and \$2,398 million or \$8.51 per share in 1988.

Chemicals and Performance Products

Sales and operating income declined in Chemicals and Performance Products during 1990 as a result of 7 percent lower prices, higher hydrocarbon and energy costs and flat volume.

Sales were \$5.09 billion, versus \$5.41 billion and \$5.19 billion in 1989 and 1988 respectively. Operating income was \$779 million, down from the historically high levels of \$1.72 billion in 1989 and \$1.53 billion in 1988.

Operating income increased 12 percent in 1989 from 1988, reflecting higher prices and moderate cost increases. Operating rates were near capacity in 1989, while prices increased 4 percent and volume rose 0.2 percent.

Chemicals and Metals

The business began to slow in early 1990 although it still posted its third-best year ever. Sales and profits declined from 1989, due largely to an 11 percent decline in prices driven by slowing market demand and increasing industry supply. Sales were \$3.4 billion, down from \$3.8 billion in 1989 and \$3.7 billion in 1988.

Uncertainties created by the Middle East crisis were a catalyst for the market, which improved business in the second half of 1990. This slowed the recessionary trends that were beginning to impact sales and volume. Trade sales increased early in the second half, then began drifting downward at the end of the year as prices and volume began to decline.

Weaker fundamentals experienced in late 1990 are likely to continue in 1991. Prices and profit margins may be impacted by softer demand exacerbated by the U.S. recession, lower

rates of global economic growth and additional capacity. Operating rates may slip from about 95 percent in 1990 to slightly less than 90 percent in 1991.

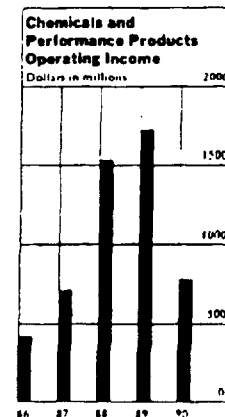
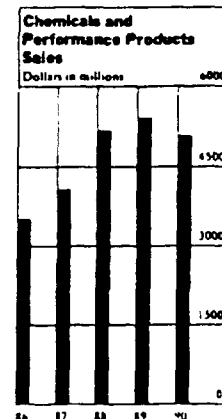
Chlorine/caustic soda: Chlorine demand continues to decline due to environmental concerns in the pulp and paper industry, reductions in the production of chlorinated solvents as a result of the UNEP Treaty (Montreal Protocol), and lower housing starts that impact demand for vinyl chloride monomer and polyvinyl chloride.

Sales and profits of chlorinated solvents declined significantly in 1990 compared to near-record levels in 1989, largely due to the effect of the Montreal Protocol and U.S. Clean Air Act regulations that limit the production and use of these products. As the new generation of environmentally preferred fluorocarbons is developed, chlorinated solvents will serve as feedstocks. The Montreal Protocol and the Clean Air Act acknowledge the role of these chlorinated solvents by exempting their use as feedstocks in the regulation. Dow is well-positioned to serve this important and dynamic market with preferred solvents.

Dow consumes more than 90 percent of the chlorine it produces for various derivatives and is the largest global merchant marketer of caustic soda. These positions will help to insulate the Company from market shifts occurring in this product family. Record global demand and firm prices generated strong earnings from this large volume product.

Ethyleneamines: This business posted strong results again in 1990 as demand continued to increase, primarily due to its use in non-cyclical applications such as gasoline additives, lubricant oil additives, surfactants and personal care/household products. A new manufacturing plant is under construction in Texas.

Ethylene Glycol: After unusually strong results in 1989, lower prices and higher feedstock costs drove profitability down significantly in



the ethylene glycol business. Global demand is increasing 3 to 4 percent annually, but new capacity may increase faster through the early 1990s. Thus, the EG/Coolant business is likely to remain depressed in 1991.

Propylene Oxide: The propylene derivatives chain, more resistant to economic cycles than ethylene derivatives, posted strong results again in 1990. Operational problems in the industry kept supply relatively tight, contributing to stable prices and operating margins. Because of new applications and existing markets, demand should increase nearly 5 percent annually.

Propylene Glycol: Used in such applications as unsaturated polyester resins, detergents, food, pharmaceuticals and cosmetics, this product showed continued growth, with strong operating income and healthy return on sales.

Performance Products

Sales in Performance Products increased 9 percent to \$1.7 billion in 1990, on target with long-term goals set for the sub-segment. Sales were \$1.56 billion in 1989 and \$1.47 billion in 1988. Profitability remained stable throughout the year in most products, although year-end results were impacted by higher raw material costs and year-end adjustments. Prices increased slightly during the year and operating rates were near capacity.

Coatings and Binders: Higher raw material costs as a result of the Middle East crisis lowered the margins for latex during the second half of the year.

Dow's market strength historically has been in styrene butadiene emulsion polymers for the paper and carpet markets, which represent only one-third of the global emulsion polymers market. To tap more of this market, Dow is expanding into a broader product range, primarily through new acrylate-based technology.

A latex plant in England was converted to acrylate-based products in 1990 and Dow's

technology also was supplemented during the year through an in-licensing program.

Dow added more than 100 million pounds of styrene butadiene latex capacity in the U.S., Canada, Europe and the Pacific in 1990. Annual capacity now exceeds 1 billion pounds. Two additional facilities are under construction; a plant in Venezuela will begin operation in 1991 and the Thailand joint venture plant will be completed in 1992.

Separation Systems: With sales up 24 percent in 1990, Separation Systems is a high growth business and the Company continues to reinvest profits through a \$30 million per year research effort. It is expected to become a profit contributor in the mid-1990s.

Filmtec reverse osmosis membranes posted strong sales during the year, as did Dow Denmark Separation Systems, which was purchased in late 1989 to add ultra- and micro-filtration technology.

CD Medical, a wholly owned subsidiary of Dow with annual sales of about \$50 million, was sold to Althin Medical AB of Sweden in 1990 because it no longer fit the long-term strategy of Separation Systems.

Formulation Products: This business posted the strongest growth during 1990 in the Performance Products sub-segment. Margins were maintained, even though costs increased. The business will continue to expand, with three markets—food, pharmaceuticals and personal care—targeted for high growth potential.

Capacity additions are slated for cellulose, chelating agents, surfactants and superabsorbents during 1991 and 1992.

Oxygenated Solvents: Using Dow's leadership position in propylene oxide, the Company has expanded this business by emphasizing propylene oxide-based glycol ethers. Environmental concerns about chlorinated, hydrocarbon and some ethylene oxide-based solvents have created growth opportunities for Dow's propylene oxide-based solvent chemistry. Thus,



Dow's oxygenated solvents have maintained growth even though the total market for solvents has declined.

Outlook for Chemicals and Performance Products

The quality of the Chemicals and Metals business is strong, although down from peak levels set in 1988 and 1989. Dow has maintained its strategic position as a low-cost producer while maintaining high environmental standards. Closely tied to economic conditions, this business will steadily improve as the economy recovers in late 1991 or 1992.

Performance Products is expected to strengthen further in 1991, posting increased profits as a result of high operating rates and prices that remain at the higher 1990 levels.

Plastic Products

Dow Plastics set another sales record in 1990, although operating income declined from 1989. Sales were \$7.39 billion in 1990, compared to \$6.99 billion and \$6.94 billion in 1989 and 1988 respectively.

Operating income was impacted by lower margins due to higher hydrocarbon and energy costs, up 13 percent during 1990, and lower prices, down 1.5 percent. Operating income was \$990 million, versus \$1.59 billion in 1989 and \$1.89 billion in 1988.

Operating income, down 16 percent in 1989 from 1988, was negatively affected by an industry-wide inventory correction in polyethylene during the first half of 1989, although demand for all key products was generally strong throughout 1989.

Thermoplastics

Polyethylene: Demand for polyethylene remained strong in 1990, with Dow's volume up 15 percent. Prices started a slow recovery in 1990 after more than a 25 percent drop in 1989. Late in 1990, prices rose significantly in response to soaring feedstock costs.

Industry supply continues to increase at a rate faster than global demand, especially in

light of a slowing economy. Dow operated at 100 percent of capacity during 1990 and operating rates are expected to remain above 90 percent throughout 1991. An expansion of Dowlex linear low density polyethylene is planned for Spain later in the year.

Polystyrene: Volume rose 11 percent from 1989 with plants operating near capacity. Prices fell gradually during the first half of 1990, recovering somewhat in the second half in response to rising hydrocarbon and energy costs.

Dow signed an agreement to form a joint venture to manufacture polystyrene in Indonesia, Dow's first facility in that country. In late 1989, a 200 million pound facility in Hong Kong started production. The next increment of capacity is slated for Belgium in 1993.

Industry additions to styrene monomer capacity in 1990 and 1991, which when combined with slower economic conditions in the U.S. and Europe, may put additional pressure on polystyrene prices in 1991.

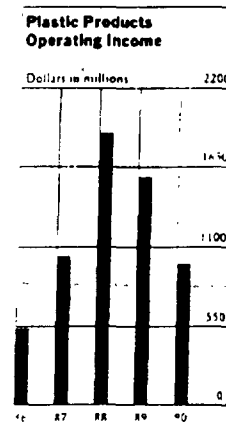
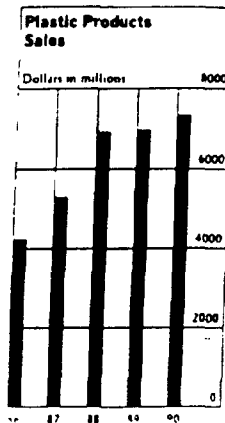
Engineering Thermoplastics: Sales and volume again rose during 1990 as a result of increasing applications in the electronics and small appliance markets. This increase came even as other durable markets weakened in the U.S. Margins were reduced, however, by higher-than-expected manufacturing costs.

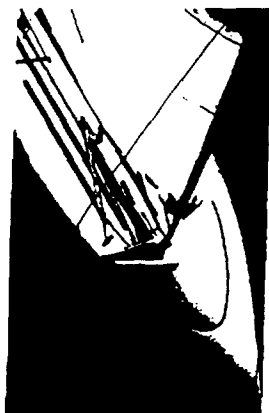
A compounding facility in Germany started operations mid-year and a polycarbonate expansion was completed in Texas during the later part of 1990. A new resin plant at the Stade, Germany site will begin operation during the first half of 1991.

Thermosets

Sales and volume for the Thermoset sub-segment increased in 1990. Demand, steady through most of 1990, began to fall in November as a result of recessionary influences in key markets, although this business area is buffered by both application and geographical diversity.

Operating margins were lower in the first half of 1990 due to increasing industry capacity





in products such as isocyanates and epichlorohydrin and the inability to offset higher costs with price increases. Costs rose faster after the Iraqi invasion; prices also increased, but not enough to offset the higher costs.

An epoxy unit in Germany and a polyol plant in Taiwan started production in early 1990, while a para-bisphenol plant in Texas and polyol plants in the Netherlands and Colombia started up later in the year. Capital-efficient incremental expansions for propylene oxide were completed in Canada, Brazil and Texas.

Dow will produce glycidyl methacrylate (GMA), a reactive monomer used in weatherable automotive and industrial coating applications, at a new plant in Texas that will start operating in 1991. Dow's global epichlorohydrin production capacity, which exceeds 600 million pounds, will increase with an announced 80-million pound expansion in Texas in 1993. Polyol expansions were announced for 1992 start-up in Brazil and Spain, and in Thailand through a joint venture with Pacific Plastics (Thailand) Limited. Also beginning operation in 1992 is a 140-million pound methylene diphenyl diisocyanate (MDI) plant in Germany.

Great strides have been made in CFC-replacement polyurethane formulations, greater polyurethane use in automobile parts, and recycle and recovery programs. In 1990, the Company signed an agreement with PolyCon Corporation to develop high-density multi-chip module capabilities using benzocyclobutene (BCB) polymers from Dow.

Dow-United Technologies Composite Products, Inc., a joint venture formed in late 1989, combines Dow's resin and molding technology with the composite fabrication business of the Sikorsky division of United Technologies. The consolidation was completed in 1990 and business results met or exceeded first year expectations. Advanced composites offer low weight with high strength and durability.

Dow and CommTech International signed an agreement assigning Dow exclusive world-

wide rights to manufacture and sell polybenzoxazole (PBZ) polymers, a family of liquid crystalline, rigid rod polymers that combine high tensile strength and stiffness with resistance to high temperatures, moisture and ultraviolet radiation. The first material being developed by Dow using these polymers is polybenzobisoxazole (PBO). Light weight and high strength-to-weight ratios make PBO fibers a natural for both commercial and military aerospace vehicles. This technology will significantly strengthen Dow's advanced materials position.

Fabricated Products

Sales increased during 1990, but margins were significantly impacted by increased raw material and energy costs and softening demand, particularly in the construction industry.

The business in Styrofoam brand insulation increased in 1990 due to an increased product mix and an intense specification selling effort. Continued global growth is expected because of increased emphasis on energy conservation.

Debottlenecking projects were completed around the world and a new Brazilian facility to produce Styrofoam and Ethafoam brand foams started operation during the year. Announced in 1989, a joint venture in Hungary is building a facility that will be completed in 1991. Dow now produces Styrofoam brand foam at 23 sites in 13 countries.

To date, Dow has converted its foam plants in the U.S., Canada and Japan from fully halogenated chlorofluorocarbons (CFCs) to alternatives with 95 percent less ozone-depletion impact, and is on schedule to complete this global commitment in 1992.

After a peak year in 1989, demand and sales for Ethafoam slowed with slowing sales of large electronics that use Ethafoam for packaging. New product introductions, including Sun-Pac photodegradable plastic loose-fill and Strandfoam plastic foam, had good first-year sales based on strong customer interest.

The Commercial Films business had solid growth, with Europe posting record sales and



profits. Polystyrene film products and Zetabon plastic clad metals continue to grow due to strong franchises in well-established markets.

Outlook for Plastic Products

Increased capacity in certain plastic products will put pressure on operating margins, but industry operating rates are expected to stay above the mid-80 percent mark, higher than in previous downturns. In addition, energy prices should decline from recent peaks, helping to restore margins in the downstream products.

Key markets, such as construction, automotive and consumer durables, could be impacted by slower economic growth, but an improving economy in the second half of 1991 would result in increased demand.

Hydrocarbons and Energy

Feedstock price increases related to the Middle East crisis resulted in rapid cost hikes in the second half of 1990. Sales for the segment were \$2.2 billion, up from \$1.8 billion and \$1.5 billion in 1989 and 1988 respectively. Operating income was \$156 million, down 35 percent from 1989. Operating income was \$239 million in 1989 and \$220 million in 1988.

Although average crude oil prices increased 20 percent in 1989 versus 1988, the Company's hydrocarbon feedstock costs rose less than 10 percent due to Dow's diversity and flexibility in using optimum feedstocks.

Prior to the Iraqi invasion of Kuwait on August 2, hydrocarbon and energy feedstock pricing was similar to 1989. Operational problems such as the Gulf Coast freeze tightened supply, stabilizing ethylene and styrene prices. Oil prices started to rise, however, and Dow increased inventories of hydrocarbon feedstocks in anticipation of further increases.

With the invasion, prices for some of Dow's hydrocarbon feedstocks rose 50 to 100 percent. Hydrocarbon and energy costs, up just 1.5 percent in the first half of 1990, jumped 9 percent in the third and 37 percent in the fourth quarters, for a year-end increase of 13.3 percent over 1989.

Dow's increased inventory, combined with its feedstock flexibility and distribution infrastructure on the U.S. Gulf Coast, allowed Dow to use its inventory position to delay the cost increase impact from the third to the fourth quarter.

Apart from the crisis, industry fundamentals indicate supply is long and shortages of feedstocks are unlikely.

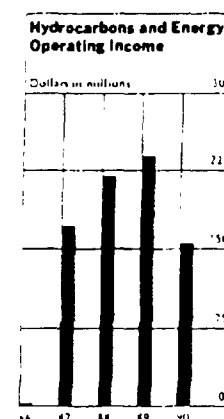
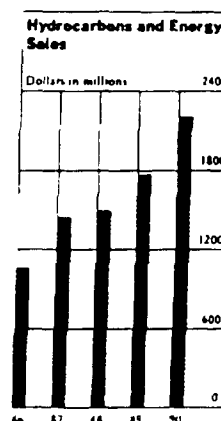
Ethylene: Dow made incremental increases in capacity during 1990 in both Spain and the Netherlands. Additional industry capacity will be added in 1991, and is forecast to reduce operating rates from 90 percent to the mid-80s in 1991. Global operating rates may slip further in 1992, but then are forecast to improve. Dow's strategy is to build ethylene capacity behind internal demand, and has begun construction on two world-scale facilities. The 1.2 billion pound Canadian plant and the 1.5 billion pound Texas plant are slated to be finished in the mid-1990s to meet projected demand increases. These will be the first facilities Dow has constructed in more than 15 years.

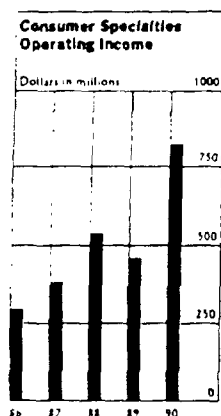
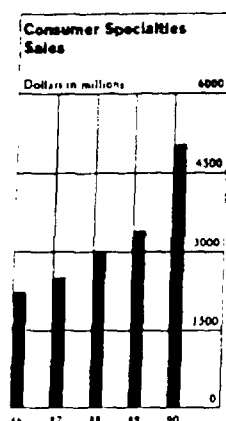
Styrene: Prices were unexpectedly strong in 1990 because of a series of unplanned plant outages in the industry, which kept supply/demand balanced to short. Styrene prices fell sharply at year-end, however, in anticipation of the start-up of new industry capacity.

Dow will begin operating a new one-billion pound styrene plant in the Netherlands in the second quarter of 1991; an existing 540 million pound plant will be phased out at that site.

Energy: In 1990, Dow began receiving steam and power for its Michigan Division under an agreement with the Midland Cogeneration Venture.

Destec Energy: Dow announced an initial public offering of stock in Destec Energy, Inc., a wholly owned energy subsidiary, in July, but withdrew the offering in October. The Company cited poor market conditions (the Dow Jones Industrial Average, impacted by the Iraqi





invasion of Kuwait, dropped 15 percent during that period), but said interest was strong and the offering would be implemented once market conditions improved. Destec, the largest independent power company in the U.S., posted sales of more than \$400 million and exceeded profit expectations for 1990.

Outlook for Hydrocarbons and Energy

Dow expects the cost of oil to average less than \$30 per barrel in 1991, although it may fluctuate until the Middle East crisis is resolved. Ethylene and styrene prices will be under downward pressure as crude oil prices fall.

Consumer Specialties

The Consumer Specialties segment posted record sales and operating income due to consolidations in late 1989 and continued sales growth of existing products.

Sales for the year were \$5.1 billion, up 48 percent from 1989. Sales were \$3.4 billion and \$3.0 billion in 1989 and 1988, respectively. Operating income was \$832 million, up 80 percent from \$462 million a year ago. Operating income in 1988 was \$540 million.

In 1989, expenses related to new product launches and the cost of integrating acquired businesses lowered operating income from the record set in 1988.

Agricultural Products

Sales for the sub-segment were \$1.5 billion in 1990, up 46 percent from 1989. Sales were \$1.0 billion in 1989 and \$959 million in 1988. The increase in sales was due largely to the consolidation of Elanco during the fourth quarter of 1989.

Dow and Eli Lilly and Company agreed to form a joint venture called DowElanco in April 1989; Dow owns 60 percent. During 1990, DowElanco essentially completed its consolidation while maintaining a competitive business.

Lorsban and Dursban insecticides posted their highest sales ever while maintaining

good profitability. They are well positioned as cost-effective products in a slow agricultural economy. Trellan and Sonalan herbicides are also well-suited. While volume fell in 1990, primarily due to a cold, wet spring in the Midwest, good progress was made in reintroducing Trellan in Latin America.

Starane herbicide, first launched in Europe in 1985, rapidly gained market share in 1990 and contributed to the product's sales record in Europe. A new intermediates production site is under construction in California to increase capacity and replace existing facilities when it is finished in 1992.

Pharmaceuticals

Pharmaceutical sales were \$2.6 billion in 1990, versus \$1.4 billion and \$1.3 billion in 1989 and 1988 respectively. Sales increased 85 percent from 1989 due to the consolidation of Marion Laboratories, Inc. with Merrell Dow Pharmaceuticals Inc. in December 1989, which created a new publicly traded pharmaceutical company known as Marion Merrell Dow Inc. At year-end 1990, Dow owned 68.8 percent of the new company, which increased both sales and operating income.

Marion Merrell Dow has conducted an analysis of its research and development pipeline to determine the global market potential for each compound. Sixty-one new compounds and 33 line extensions of existing products were identified for in-depth internal review; 26 were also analyzed by a consulting firm with extensive experience in pharmaceutical portfolio analysis. Resources will be dedicated to the most promising compounds, and products not developed will be available for outlicense, sale or trade.

International sales, approximately 28 percent of Marion Merrell Dow, increased 22 percent as a result of additional unit sales from new products and further market penetration in key markets.

Cardizem: Competitive pressure continued on both Cardizem tablets for the treatment of

angina and on Cardizem SR capsules for hypertension. As a result of co-promotion activity, as well as increased advertising and promotional support, sales of Cardizem SR increased 149 percent, while sales of Cardizem tablets decreased modestly.

Seldane: Marion Merrell Dow sales of this non-sedating antihistamine increased 40 percent as a result of market introduction in Japan, strong European sales and joint sales force promotion in the U.S. that reversed a market share decline that began in 1989. Seldane D, a dosage form combining terfenadine (the active ingredient in Seldane) with a decongestant, was submitted to the Food and Drug Administration in 1986 and is now progressing toward approval. An over-the-counter version, submitted in 1988, is being updated and expanded in response to new and evolving FDA guidelines for prescription to over-the-counter switches.

Carafate: Sales of this antiulcer product declined modestly due to competition. In 1990, the Food and Drug Administration approved a maintenance claim to prevent ulcer recurrence. Liquid and twice daily dosage forms continue under review.

Consumer Products

Sales for DowBrands, Dow's consumer products business, were \$934 million, down slightly from \$966 million in 1989. Sales in 1988 were \$797 million. Increased competition in mature food protection markets in the U.S., combined with the downsizing of the personal care salon business, reduced sales from 1989 levels.

Ziploc bags, the flagship of the Household Products Division, did not meet expectations in the U.S. and, although it remains the number one brand in the category, lost market share during the year. An active program to regain market share is underway. Global expansion of zippered bags continued in the Pacific, Europe and Canada during 1990.

The Company purchased the marketing rights for Ziploc in Japan from Lion Corporation,

which provided both marketing and distribution services. Ziploc was launched in France in late 1990 and attained the number one market share in Canada.

Outside the U.S., DowBrands sales rose 28 percent in 1990, largely due to the 1989 acquisition of First Brands' consumer products business in Europe. The non-U.S. business now represents about 23 percent of DowBrands' total sales.

Spiffits premoistened cleaning towels, launched in 1989, established a new \$100 million industry category and holds the largest market share. The category has already become very competitive and will be monitored closely in 1991. Spiffits was named one of the ten best new products of 1989 by the American Marketing Association. Fantastik S'wipe's two-sided cleaning towels were launched in 1990.

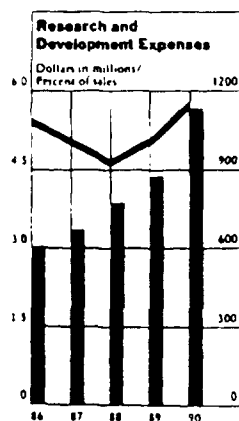
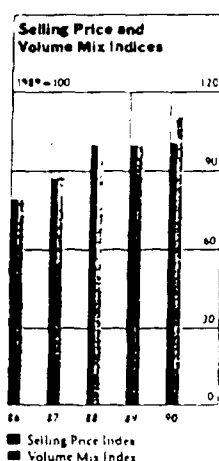
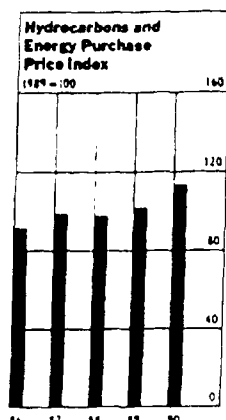
In late 1990, DowBrands introduced controlled atmosphere packaging technology in Denver, Colorado. Summerfield's tomatoes use proprietary technology to assure vine-ripened freshness year-round and will tap the \$2 billion tomato market.

Perma Soft, the Personal Care Division's top line of shampoos, conditioners, styling aids and hair sprays, posted a slight sales gain. In late 1990, it was restaged with contemporary packaging and new formulas. Style Plus shampoo and conditioner in one was developed and will be introduced in early 1991.

Outlook for Consumer Specialties

With the consolidations of both Marion and Elanco virtually complete, sales and earnings are expected to increase in this segment in 1991. DowElanco is forecast to exceed growth rates of the agricultural chemicals industry. Likewise, Marion Merrell Dow expects sales to increase 8 to 10 percent, and earnings approximately 20 percent in 1991. DowBrands margins, although disappointing in 1990, should increase in 1991 as a result of its restructuring and consolidations. Strong competition will continue in the food protection product lines.





Unallocated

Included in this segment are operating results of the consolidated insurance, banking and credit finance subsidiaries, and overhead cost variances not allocated to other business segments.

This segment had operating income of \$61 million in 1990, \$5 million in 1989 and an operating loss of \$126 million in 1988.

A significant reduction in overhead cost variance was the main reason for the \$56 million improvement over 1989.

In 1988, this segment included a \$22 million pretax charge for indemnities related to prior year asset sales.

Sales

Net sales increased 12 percent to \$19.8 billion in 1990 from \$17.6 billion in 1989 and \$16.7 billion in 1988. The 1990 increase includes the fully consolidated sales of Marion Merrell Dow and DowElanco, which account for most of the 36 percent volume increase in the consumer specialties business. The total Company sales volume increased 11 percent in 1990, 6 percent in 1989 and 9 percent in 1988.

Global selling prices increased by 1 percent in 1990. They were flat in 1989 and up 16 percent in 1988.

Industry and geographic segment sales are presented in Note R to Financial Statements and in the Product Segment Sales Analysis on page 58.

Components of the changes in sales by geographic and industry segments are shown below:

Sales Price and Volume

Percentage changes from prior year	1990			1989		
	Price	Volume	Total	Price	Volume	Total
Geographic Areas:						
United States	(1)%	18%	17%	3%	5%	8%
Europe	8	5	13	(2)	9	7
Rest of World	(6)	6	—	(4)	3	(1)
Industry Segments:						
Chemicals and Performance Products	(7)%	—	(7)%	4%	—	4%
Plastic Products	(2)	7	5	(6)	7	1
Hydrocarbons and Energy	14	10	24	4	14	18
Consumer Specialties	9	36	45	3	9	12

Operating Income

Operating income was \$2.8 billion in 1990, down 30 percent from 1989. The ratio of operating income to sales was 14 percent in 1990, 23 percent in 1989 and 24 percent in 1988.

The United States had an operating income of \$1.6 billion, which was 58 percent of the Company's total. The figures for 1989 and 1988 were \$1.9 billion or 47 percent and \$1.7 billion or 41 percent, respectively. Europe's operating income of \$.7 billion in 1990 was 25 percent of the Company's total versus \$1.2 billion in 1989 or 29 percent and \$1.3 billion in 1988 or 32 percent.

Operating income data by geographic and industry segment can be found in Note R.

Operating Cost

Cost components as a % of total:	1990	1989	1988
Hydrocarbons and energy	26%	26%	26%
Supplies, services and other raw materials	38	37	37
Maintenance	7	8	8
Depreciation	7	7	7
Salaries, wages and benefits	22	22	22
Total	100%	100%	100%

Manufacturing plants operated at 90 percent of capacity versus 92 percent in 1989 and 96 percent in 1988. Additional capacity was the main reason for a lower operating rate in 1990.

Manufacturing costs, adjusted for volume, were 5 percent higher after a 5 percent increase in 1989 and decreased 2 percent in 1988. The increase in 1990 compared to 1989 was mainly due to higher hydrocarbons and energy prices, which were up 13 percent following an increase of 4 percent in 1989 and were unchanged from 1988.

Research and development costs were \$1,136 million in 1990, a 30 percent increase over 1989. The majority of this increase came from the consumer specialties business, which had a 67 percent increase in 1990 and includes the fully consolidated costs of Marion Merrell Dow and DowElanco. Research and development spending in all other business segments were up 6 percent for the year. Costs were up 13 percent in 1989 and 15 percent in 1988 and reflect the Company's strategy of growth through new Dow-developed technology.

Promotion and advertising expenses are discretionary expenses directly related to sales levels in the specialties businesses. Promotion and advertising expenses were \$639 million in 1990, a 29 percent increase almost entirely related to the consumer specialties business, which increased \$141 million and supports the Company's commitment to the specialties business. Costs were \$494 million in 1989 and \$415 million in 1988, up 19 and 26 percent, respectively.

Cost control programs are in effect in the selling and administration area. Costs are up \$326 million in 1990, or 19 percent, and are mainly in the consumer specialties business with a 44 percent increase over 1989 as a result of acquisitions made late in the year. They reflect the shift of the product mix to specialty products which require more intensive customer contact and support. Spending for all other business segments was up 3 percent for the year. Selling and administrative expenses, as a percent of sales, were 10.5 percent, 10.0 per-

cent and 9.7 percent for 1990, 1989 and 1988, respectively.

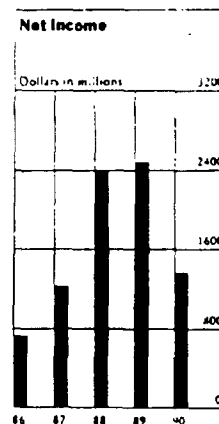
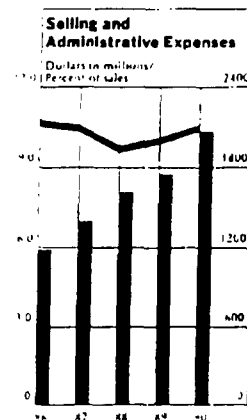
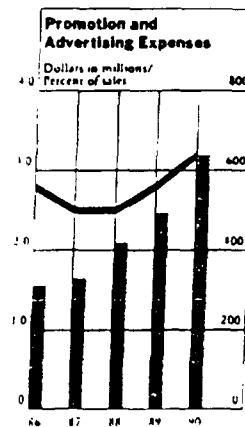
The personnel count at December 31, 1990 was 62,080, flat with 1989 at 62,111. While the December 31, 1989 personnel count includes all Marion Merrell Dow and DowElanco employees, the salaries, wages and benefits amounts in 1989 include only a small portion of the year since the consolidation of these companies took place in the last-quarter of that year. Consequently, salaries, wages and benefits increased 25 percent in 1990 following increases of 7 percent in 1989 and 12 percent in 1988.

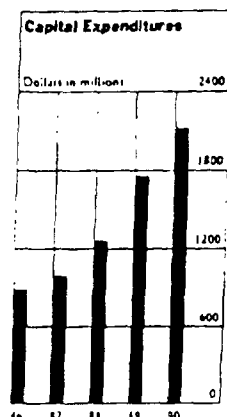
Net Income

Equity in earnings of 20%-50% owned companies were \$143 million in 1990, \$138 million in 1989 and \$89 million in 1988. Excluding Marion Laboratories, which was included in the third quarter before gaining control in the fourth quarter of 1989, equity earnings in 1990 increased by 25 percent over 1989. Again in 1990, Dowell Schlumberger companies produced most of the improvement over 1989. Dow Coming increased its earnings by 6 percent in 1990, a new record level following a record 1989.

Gross interest expense of \$740 million was up \$227 million in 1990, compared to \$513 million in 1989 and \$400 million in 1988. The interest expense increase in 1990 was due primarily to the financing related to acquisitions made in 1989.

Foreign currency transaction gains of consolidated subsidiaries were \$56 million in 1990 compared to \$58 million in 1989 and \$5 million in 1988. Favorable gains compared to 1990 are expected to continue. The provision for taxes on income was \$978 million in 1990. This compares to \$1,436 million in 1989 and \$1,450 million in 1988. The factors that influenced the Company's overall effective tax rate for the past three years are described in Note F to Financial Statements on pages 44 and 45.





Dividends

The Company paid dividends of \$2.60 per common share in 1990, \$2.18 per common share in 1989 and \$1.63 per common share in 1988.

Capital Expenditures

Capital spending increased by 20 percent for the year to meet demand and maintain our commitment to state-of-the-art technology. Additions to plant properties were \$2,119 million for 1990 compared to \$1,756 million in 1989 and \$1,264 million in 1988. See Note P.

Liquidity and Capital Resources

Days-sales-in-inventory were 95 days, down from 105 days in 1989 and 98 days in 1988. Days-sales-outstanding-in-receivables were 53 days compared to 56 days in 1989 and 55 days in 1988. Working capital was \$2,265 million at year end versus \$909 million at the end of 1989. The increase in working capital resulted mainly from a decrease of \$1,012 million in notes payable with short-term debt refinanced into longer term maturities.

The debt to total capitalization (excluding temporary equity) ratio at year end 1990 was 41.3 percent, down slightly from 41.8 percent in 1989. Total debt was \$6.6 billion at December 31, 1990, up from \$6.1 billion in 1989.

Short-term borrowing at December 31, 1990 and 1989 was \$1,194 and \$2,206 million, respectively. In 1990, new long-term debt of \$1,481 million was incurred and existing long-term debt was reduced by payments of \$154 million.

The Company currently has unused and available credit facilities with various U.S. and foreign banks totaling \$3.3 billion, supporting its working capital requirements and backing up its commercial paper borrowings in the U.S. These committed credit facilities are complemented by a variety of credit facilities available to the Company's foreign subsidiaries, currently over \$1.4 billion.

The Company has two SEC shelf registrations, approved in September 1989 and Janu-

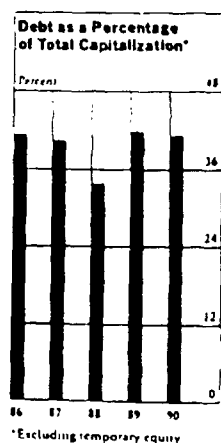
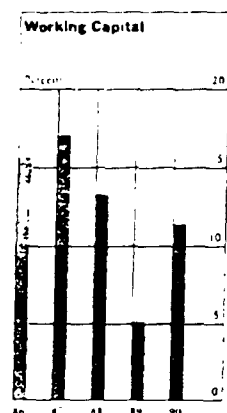
ary 1990, respectively, for a total of \$1 billion of debt securities, of which \$468 million have been issued to date.

Additionally, the wholly owned subsidiary Dow Capital B.V. obtained approval of three SEC shelf registrations in April 1990, August 1990 and September 1990, for a total of \$1.5 billion of debt securities, of which \$746 million have been issued to date.

While Dow has increased its level of borrowings and has a contingent liability for the Contingent Value Rights (CVRs) resulting from the Marion Laboratories acquisition, Dow continues to have substantial sources of liquidity, including cash from operations, short-term investments and existing credit facilities.

In April 1989, Dow announced an 18 million share repurchase program of its common stock. Similar programs were initiated in 1988 for 18 million shares. In 1990 the Company bought nearly 1 million shares at \$49 million, while 8 million shares at \$525 million and 12 million shares at \$652 million were repurchased on the open market in 1989 and 1988, respectively.

The Company expects its current repurchase program to be completed in 3-4 years.



Quarterly Statistics

In millions, except for share amounts (Unaudited)

1990	1st	2nd	3rd	4th	Year
Net sales	\$4,900	\$4,807	\$4,919	\$5,147	\$19,773
Operating income	897	714	664	543	2,818
Pretax income	853	661	575	474	2,563
Net income available for common stockholders	460	363	282	273	1,378
Earnings per common share	1.71	1.34	1.04	1.01	5.10
Cash dividends paid per common share	.65	.65	.65	.65	2.60
Market price range of common stock:					
High	75.75	66.75	60.13	48.50	75.75
Low	62.25	56.50	37.00	38.63	37.00

1989	1st	2nd	3rd	4th	Year
Net sales	\$4,485	\$4,601	\$4,250	\$4,264	\$17,600
Operating income	1,205	1,183	939	683	4,010
Pretax income	1,181	1,158	936	660	3,935
Net income available for common stockholders	743	728	589	426	2,486
Earnings per common share	2.72	2.70	2.19	1.59	9.20
Cash dividends paid per common share	.47	.53	.53	.65	2.18
Market price range of common stock:					
High	67.00	64.83	70.00	72.25	72.25
Low	57.33	55.50	56.00	60.58	55.50

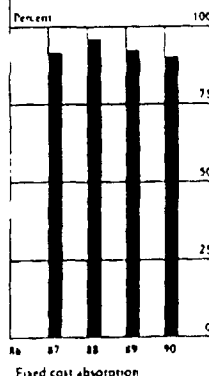
1990 Income Distribution

cents per dollar



Raw materials, supplies and services	60.7
Earnings reinvested in business	3.4
Wages, salaries and employee benefits	19.2
Total taxes	7.2
Depreciation	5.9
Cash dividends	3.6

Operating Rate F.C.A.*



Fixed cost absorption

RESPONSIBILITY FOR FINANCIAL STATEMENTS AND
REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

The Dow Chemical Company and Subsidiaries

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. The statements were prepared in accordance with generally accepted accounting principles. The financial statements include amounts that are based on management's best estimates and judgments. Management also prepared the other information in the 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 a system of internal control that provides 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.

The system of internal control provides for appropriate division of responsibility and is 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 the system of internal control for compliance. The Company maintains a strong internal auditing program that independently assesses the effectiveness of the internal controls and recommends possible improvements.

Deloitte & Touche, independent public accountants, 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 concerning the system of internal control 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.

Report of Independent Public Accountants

*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, 1990 and 1989, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 1990. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. 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, such consolidated financial statements present fairly, in all material respects, the financial position of The Dow Chemical Company and its subsidiaries at December 31, 1990 and 1989, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1990 in conformity with generally accepted accounting principles.

Deloitte & Touche

Midland, Michigan
February 13, 1991

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CONSOLIDATED STATEMENT OF INCOME

The Dow Chemical Company and Subsidiaries

In millions, except for share amounts		1990	1989	1988
Net sales		\$19,773	\$17,600	\$16,682
Operating costs and expenses	Cost of sales	13,035	10,478	9,806
	Insurance and finance company operations, net (income)	(65)	(59)	(28)
	Research and development expenses	1,136	873	772
	Promotion and advertising expenses	639	494	415
	Selling and administrative expenses	2,084	1,758	1,625
	Amortization of intangibles	126	46	43
	Total operating costs and expenses	16,955	13,590	12,633
Operating income		2,818	4,010	4,049
Other income (expense)	Equity in earnings of 20%-50% owned companies	143	138	89
	Interest income	123	130	86
	Capitalized interest	84	49	30
	Interest expense and amortization of debt discount	(740)	(513)	(400)
	Gains on foreign currency transactions	56	58	5
	Sundry income (expense)—net	79	63	(4)
Income before provision for taxes on income and minority interest		2,563	3,935	3,855
Provision for taxes on income		978	1,436	1,450
Minority interests' share in income		201	12	7
Net income		1,384	2,487	2,398
Preferred stock dividends		6	1	
Net income available for common stockholders		\$ 1,378	\$ 2,486	\$ 2,398
Earnings per common share		\$ 5.10	\$ 9.20	\$ 8.51

See Accounting Policies and Notes to Financial Statements

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CONSOLIDATED BALANCE SHEET

The Dow Chemical Company and Subsidiaries

In millions	December 31	1990	1989
	Assets		
Current assets	Cash and cash equivalents	\$ 204	\$ 117
	Marketable securities and interest-bearing deposits (at cost, which approximates market)	95	172
	Accounts and notes receivable:		
	Trade (less allowance for doubtful receivables— 1990, \$83; 1989, \$60)	2,923	2,739
	Other	1,615	1,523
	Inventories:		
	Finished and work in process	2,554	2,208
	Materials and supplies	628	624
	Total current assets	8,019	7,383
Investments	Capital stock at cost plus equity in accumulated earnings of 20%-50% owned companies	1,156	958
	Other investments	1,111	1,099
	Noncurrent receivables	644	838
	Total investments	2,911	2,895
Plant properties	Plant properties	19,149	16,700
	Less—accumulated depreciation	10,900	9,620
	Net plant properties	8,249	7,080
Other	Goodwill (net of accumulated amortization— 1990, \$211; 1989, \$97)	4,189	4,150
	Deferred charges and other assets	585	500
	Total	\$23,953	\$22,008

See Accounting Policies and Notes to Financial Statements

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In millions, except for share amounts		December 31	1990	1989
Liabilities and Stockholders' Equity				
Current liabilities	Notes payable		\$ 1,194	\$ 2,206
	Long-term debt due within one year		239	80
	Accounts payable:			
	Trade		1,874	1,765
	Other		594	506
	Taxes on income		275	256
	Dividends payable		193	192
	Accrued and other current liabilities		1,385	1,469
Total current liabilities			5,754	6,474
Long-term debt			5,209	3,855
Deferred taxes and other liabilities	Deferred income taxes		698	506
	Other noncurrent obligations		1,324	1,107
	Total deferred taxes and other liabilities		2,022	1,613
Minority interest in subsidiary companies			726	595
Temporary equity	Contingent value rights (CVRs)		1,514	1,514
	Preferred stock (authorized 250,000,000 shares of \$1.00 par value each; issued Series A—1990: 1,602,322; 1989: 1,602,322) at redemption value \$138, less guaranteed ESOP obligation \$138		—	—
	Total temporary equity		1,514	1,514
Stockholders' equity	Common stock (authorized 500,000,000 shares of \$2.50 par value each; issued—1990: 327,125,944; 1989: 327,125,944)		818	818
	Additional paid-in capital		600	621
	CVR valuation adjustment		(753)	(753)
	Retained earnings		9,675	8,999
	Unrealized gains (losses) on investments		(2)	—
	Cumulative translation adjustments		274	205
	Treasury stock, at cost (1990: 57,135,509; 1989: 57,824,701)		(1,884)	(1,933)
	Net stockholders' equity		8,728	7,957
	Total		\$23,953	\$22,008

See Accounting Policies and Notes to Financial Statements.

CONSOLIDATED STATEMENT OF
STOCKHOLDERS' EQUITY

The Dow Chemical Company and Subsidiaries

In millions, except for share amounts		1990	1989	1988
Common stock	Balance at beginning of year	\$ 818	\$ 545	\$ 541
	3 for 2 stock split		273	
	Sold to employees ¹			4
	Balance at end of year	818	818	545
Additional paid-in capital	Balance at beginning of year	621	923	817
	Sale of common stock to employees in excess of par			106
	Sale of common stock to employees at less than cost ¹	(21)	(29)	
	3 for 2 stock split		(273)	
	Balance at end of year	600	621	923
CVR valuation adjustment	Balance at beginning of year	(753)		
	Valuation adjustment		(753)	
	Balance at end of year	(753)	(753)	
Retained earnings	Balance at beginning of year	8,999	7,167	5,255
	Net income	1,384	2,487	2,398
	Unfunded pension obligations		(14)	
	Preferred stock dividends declared ²	(6)	(1)	
	Common stock dividends declared (\$2.60 per share for 1990; \$2.37 per share for 1989; and \$1.73 per share for 1988)	(702)	(640)	(486)
	Balance at end of year	9,675	8,999	7,167
Unrealized gains (losses) on investments	Balance at beginning of year	—	—	(29)
	Current year gain (loss)	(2)	—	29
	Balance at end of year	(2)	—	—
Cumulative translation adjustments	Balance at beginning of year	205	182	95
	Current year translation adjustment	69	23	87
	Balance at end of year	274	205	182
Treasury stock	Balance at beginning of year	(1,933)	(1,562)	(910)
	Purchase of stock	(49)	(525)	(652)
	Sale of stock to employees ¹	98	154	
	Balance at end of year	\$ (1,884)	\$ (1,933)	\$ (1,562)

See Accounting Policies and Notes to Financial Statements.

¹Effective January 15, 1989, all stock issues are from treasury stock

²See Note B

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CONSOLIDATED STATEMENT OF CASH FLOWS

The Dow Chemical Company and Subsidiaries

In millions		1990	1989	1988
Operating Activities	Net income	\$ 1,384	\$ 2,487	\$ 2,398
	Adjustments to reconcile net income to net cash provided by operating activities:			
	Depreciation and amortization	1,322	1,061	981
	Provision (credit) for losses on accounts receivable	36	(18)	34
	Provision (credit) for deferred income tax	143	(32)	34
	Undistributed earnings of related companies	(90)	(56)	(27)
	Minority interest in income	201	12	7
	Gains on the sales of equipment	(9)	(11)	(5)
	Other	31	25	22
	Gains on foreign currency transactions	(56)	(58)	(5)
	Changes in assets and liabilities that provided (used) cash:			
	Trade receivables	(114)	(77)	(663)
	Inventories	(220)	(267)	(269)
	Other receivables and deferred charges	179	(147)	(270)
	Accounts payable and accruals	283	464	698
	Cash provided by operating activities	3,090	3,383	2,935
Investing Activities	Purchases of property, plant and equipment	(2,123)	(1,771)	(1,032)
	Investments in unconsolidated affiliates	(70)	(34)	(53)
	Purchases of consolidated companies (net of cash acquired)	(161) ¹	(2,559) ¹	(347)
	Proceeds from sales of equipment	88	134	17
	Investment in marketable securities and other investments	(135)	(193)	(479)
	Cash used for investing activities	(2,401)	(4,423)	(1,894)
Financing Activities	Proceeds (payments) of notes payable	(1,239)	1,503	—
	Proceeds from issuance of long-term debt	1,481	479	107
	Payments on long-term debt	(154)	(175)	(362)
	Purchase of treasury stock	(49)	(525)	(652)
	Dividends paid to stockholders	(711)	(578)	(461)
	Proceeds from sales of treasury stock	64	75	80
	Proceeds from sales of preferred stock		138	
	Cash provided (used) for financing activities	(608)	917	(1,288)
	Effect of exchange rate changes on cash	6	15	54
	Increase (decrease) in cash and cash equivalents	87	(108)	(193)
	Cash and cash equivalents at beginning of year	117	225	418
	Cash and cash equivalents at end of year	\$ 204	\$ 117	\$ 225

See Accounting Policies and Notes to Financial Statements

See Note B (issuance of redeemable preferred stock) and Note D (issuance of CVRs) for supplemental disclosures of noncash investing and financing activities.

¹Includes the purchase of shares of common stock of Manon Laboratories

ST0929182

Principles of Consolidation

The accompanying consolidated financial statements include the assets, liabilities, revenues and expenses of all majority-owned subsidiaries. Investments in companies 20%-50% owned are carried on the equity basis.

Foreign Currency Translation

Primarily, the local currency has been used as the functional currency throughout the world. Where the U.S. dollar is used as the functional currency, foreign currency gains and losses are reflected in income currently. Translation gains and losses of those operations that use local currencies as the functional currency, and the effects of exchange rate changes on transactions designated as hedges of net foreign investments, are included as a separate component of stockholders' equity.

Cash and Cash Equivalents

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

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 between the last-in, first-out (LIFO) method; the first-in, first-out (FIFO) method; and the average cost method.

Plant Properties and Depreciation

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 declining balance method.

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 amount, less proceeds from disposal, is charged or credited to income.

Goodwill

The excess of the cost of investments in subsidiaries over the carrying value of assets acquired is shown as goodwill, which is then amortized on a straight-line basis over a maximum of 40 years.

Interest Rate Derivative Instruments

Interest differentials on swaps and forward rate agreements are accrued as interest rates change over the contract period. Swaption premiums are amortized over the option period for each purchased and sold swaption.

Taxes on Income

The Company and its subsidiaries compute and record income taxes currently payable based upon determination of taxable income which may differ from pretax accounting income. These differences may arise from recording in pretax accounting income transactions which enter into determination of taxable income in another period. The tax effect of these timing differences is recognized by adjustment of the provision for taxes.

Provision is made for taxes on unremitted earnings of related companies and foreign subsidiaries to the extent that such earnings are not deemed to be permanently invested.

Certain foreign countries provide incentive payments which are granted to encourage new investment. Generally, such grants are credited to income as earned.

The Financial Accounting Standards Board Statement No. 96, "Accounting for Income Taxes" and subsequent amendments mandated a change in the method of accounting for income taxes to be effective for fiscal years beginning after December 15, 1991. The impact of this new standard has not been completely determined, but preliminary estimates indicate that the change will have no material effect assuming no increase in tax rates from current levels. The Company plans to adopt the new method in 1992.

Earnings per Common Share

The calculation of earnings per share is based on the weighted average number of common shares outstanding during the applicable period.

ST0929183

In millions, except for share amounts

A Reclassifications	The Company has decided to dispose of its oil and gas operations. Accordingly, included in other investments at December 31, 1990 and 1989 are the net assets held for sale of these operations. The Company does not expect to realize any loss on disposal. The results of operations for the oil and gas properties were not material for any of the three years in the period ended December 31, 1990. Total assets of these properties were \$518 and total liabilities were \$451 at December 31, 1990. Total	liabilities include \$300 of long-term debt with third parties that has been guaranteed by the Company. The December 31, 1989 balance sheet has been reclassified to conform with the current presentation of the Company's goodwill in 20%-50% owned companies. "Goodwill (net of accumulated amortization)" has been increased and "capital stock at cost plus equity in accumulated earnings of 20%-50% owned companies" has been decreased by \$153.
B Redeemable Preferred Stock	On October 13, 1989, the Company created an employee stock ownership plan (ESOP), which is an integral part of the Salaried Employees' Savings Plan. The ESOP borrowed \$138 at a 9.42 percent interest rate with a final maturity of December 31, 2004. This loan is guaranteed by the Company. The ESOP used the proceeds of the loan to purchase a new issue of convertible preferred stock from the Company. The preferred stock is convertible into approximately 1.6 million shares of the Company's common stock at \$86.125 per common share. The dividend yield on the preferred stock is 7.75 percent of the \$86.125 per share redemption value. Each year preferred stock held by the ESOP is allocated to the members' accounts based on payment of the loan balance. In the event the Company consummates certain merger or consolidation transactions involving the Company's common stock, the	preferred stock must be redeemed by the Company for cash at a redemption price equal to 105 percent of the \$86.125 per share redemption value, plus accrued and unpaid dividends. The Company has reflected the guaranteed ESOP borrowing as long-term debt on its balance sheet. The convertible preferred stock issued to the ESOP for cash was recorded in temporary equity section. A like amount of "Guaranteed ESOP Obligation" was recorded as a reduction of temporary equity. As the Company makes annual contributions to the ESOP, these contributions, plus the dividends paid on the Company's preferred stock held by the ESOP, will be used to repay the loan. As the principal amount of the loan is repaid, the "Guaranteed ESOP Obligation" is reduced accordingly.

ST0929184

In millions, except for share amounts

C Supplementary
Information*Accrued and Other Current Liabilities*

	1990	1989
Accrued vacations	\$ 186	\$ 178
Employees' retirement plans	102	99
Interest payable	131	101
Sundry	966	1,091
Total	\$1,385	\$1,469

Sundry Income (Expense)—Net

	1990	1989	1988
Royalty income	\$ 31	\$ 25	\$ 21
Profit (loss) on securities	(9)	7	2
Profit (loss) on sale of assets	(3)	11	5
Dividend income	13	4	5
Other—net	47	16	(37)
Total	\$ 79	\$ 63	\$ (4)

Supplementary Income Statement Information

	1990	1989	1988
Maintenance and repairs	\$1,199	\$1,108	\$1,001
Depreciation and depletion	1,170	990	933
Taxes other than income:			
Property and other taxes	241	223	189
Payroll taxes	351	248	223
Provision for doubtful receivables	51	(18)	34

D Acquisitions and
Divestitures

During 1990 the Company acquired an additional 3.92 million shares of Marion Merrell Dow Inc. common stock for \$112. The purchase of additional shares and a reduction in Marion Merrell Dow's outstanding shares increased the Company's ownership interest to 68.8 percent. This acquisition was accounted for as a purchase and increased goodwill by \$84.

Also in 1990, the Company continued its joint venture activities, investing \$87. Joint ventures in the United States received the majority of the new investment, but five of the six new joint ventures are located in the Pacific Rim.

On August 25, 1989, the Company completed a Tender Offer for 58.5 million shares of common stock of Marion Laboratories, Inc. ("Marion"), at \$38.00 per share. The shares acquired in the Tender Offer for \$2,223 cash represented at that time 38.9 percent of Marion common stock. In addition, the purchase agreement provided for Marion and Merrell Dow Pharmaceuticals, Inc. ("Merrell Dow"), the Company's pharmaceutical subsidiary, to be combined in a second step transaction to form Marion Merrell Dow Inc. On December 2, 1989, the second step was com-

pleted. This step included the issuance of 127.8 million new shares of Marion stock, to be transferred to the Company in return for all outstanding shares of Merrell Dow with a carrying value of \$547 and the issuance by the Company of 92 million Contingent Value Rights (CVRs), one CVR issued for each common share of Marion stock (except those owned by Dow). The CVRs provide that holders receive from Dow, at maturity on September 30, 1991, the amount (not to exceed \$15.77), if any, by which \$45.77 exceeds the average trading value of Marion Merrell Dow Inc. stock for the 90-day period prior to September 30, 1991 (unless, at the option of the Company, the maturity date is extended for one year, in which case the holders will receive the amount, not to exceed \$20.23, by which \$50.23 exceeds the average trading value of Marion Merrell Dow Inc. stock prior to September 30, 1992). The maximum value of the CVRs (\$1,514) is recorded as temporary equity with an adjustment in equity representing the difference (\$753) between the maximum value and the actual average value in the first 10 days of trading. The acquisition was accounted for as a purchase and resulted in goodwill of \$2,943.

ST0929185

In millions, except for share amounts

Acquisitions and
Divestitures
(continued)

The following unaudited pro forma summary combines the consolidated results of operations of the Company and Marion as if the acquisition had occurred at the beginning of 1988, after giving effect to certain adjustments, including amortization of goodwill, increased interest expense on the acquisition debt and related income tax effects, as well as minority interests' share in income.

Fiscal Year (unaudited)	1989	1988
Net sales	\$18,503	\$17,502
Net earnings	2,393	2,273
Net earnings per common share	8.86	8.06

On November 1, 1989, the Company and Eli Lilly and Company ("Lilly") completed the formation of DowElanco, a joint venture that includes the plant science businesses of both parent companies, as well as the Company's pest control business. The Company holds a 60 percent interest in the combined operations and Lilly holds a 40 percent interest.

The joint venture was formed by both partners transferring net assets. The value of the assets transferred by Dow was \$459 with goodwill recorded of \$93. The degree of integration of these businesses within Dow and Lilly prior to combination makes it impractical to determine results of operations on a pro forma basis.

During 1989, the Company acquired several other businesses for cash of \$358, accounting for them as purchases. The excess of the cost over the fair value of the identifiable net assets acquired of \$233 was treated as goodwill.

The operating results of all the above acquisitions are included in the consolidated financial statements from the dates acquired. Except for the acquisition of Marion, there would have been no material impact on revenue, net income and corresponding per share amounts had these acquisitions been effected January 1, 1988. Goodwill arising from these acquisitions is being amortized on a straight-line basis over not more than 40 years.

ST0929186

In millions, except for share amounts

E Interest and Tax Payments Cash payments for interest, and domestic and foreign income taxes are as follows:

<i>Interest</i>				<i>Domestic and Foreign Income Taxes</i>			
	1990	1989	1988		1990	1989	1988
	\$ 705	\$ 494	\$ 455		\$ 685	\$1,744	\$1,394

F Taxes on Income

The effective tax rate for 1990 was 38.2 percent.

Certain subsidiaries had net operating loss carryforwards totaling approximately \$341 (at December 31, 1990 exchange rates), which will begin to expire in 1991.

The Consolidated Balance Sheet caption "Accounts and Notes Receivable: Other" includes current deferred taxes receivable of \$306 at December 31, 1990 and \$183 at December 31, 1989.

Unremitted earnings of subsidiaries and related companies accounted for by the equity method, which are deemed to be permanently invested, amounted to \$2,008 and \$2,169 at December 31, 1990 and 1989, respectively.

<i>Domestic and Foreign Components of Pretax Income</i>			
	1990	1989	1988
Domestic	\$1,621	\$2,111	\$1,786
Foreign	942	1,824	2,069
Income before tax	\$2,563	\$3,935	\$3,855

Provision for Taxes on Income

	1990			1989			1988		
	Current	Deferred	Total	Current	Deferred	Total	Current	Deferred	Total
Federal	\$442	\$108	\$550	\$ 701	\$(45)	\$ 656	\$ 519	\$ 9	\$ 528
State and local	29	—	29	83	—	83	42	—	42
Foreign	364	35	399	684	13	697	855	25	880
Total	\$835	\$143	\$978	\$1,468	\$(32)	\$1,436	\$1,416	\$34	\$1,450

ST0929187

In millions, except for share amounts

Taxes on Income (continued)	Deferred Tax Provisions	1990	1989	1988
	Tax benefits of tax credit and loss carryforwards	\$ —	\$ 5	\$ 1
	Tax effects of foreign exchange transactions	69	(11)	6
	Difference in depreciation, depletion and provisions claimed for tax purposes and book amounts	64	46	(71)
	Undistributed earnings of foreign subsidiaries deemed not to be permanently invested	(5)	(1)	5
	Tax effects of deferred compensation plans	7	(53)	36
	Tax effects of installment sales and other deferrals	27	5	57
	Difference between LIFO method claimed for tax purposes and book amounts	12	(18)	(3)
	Other—net	(31)	(3)	3
	Total	\$143	\$(32)	\$ 34

Major Differences in Taxes on Income

	1990	1989	1988
Taxes at U.S. statutory rate	\$871	\$1,338	\$1,311
Amortization of intangibles	35	9	5
Taxes on foreign operations at rates different from U.S. statutory rate (including FSC)	52	68	97
Other	20	21	37
Total tax provision	\$978	\$1,436	\$1,450

G Inventories	A reduction of certain inventories in 1990 resulted in the liquidation of some quantities of LIFO inventory. The effect of these liquidations was to increase pretax income by \$44. The LIFO inventory liquidations in 1988 and 1989 were immaterial. The amount of reserve required to reduce	inventories from the first-in, first-out basis to the last-in, first-out basis at December 31, 1990 and 1989, was \$313 and \$115, respectively. The inventories that were valued on a LIFO basis represented 38 percent and 37 percent of the total inventories on December 31, 1990 and 1989, respectively.
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H Related Company Transactions	The Company's investments in companies accounted for by the equity method at December 31, 1990 and 1989 were \$1,156 and \$958, respectively. The amounts approximate the Company's equity in the net assets of the companies 20%-50% owned.	Dividends received from related companies were \$53 in 1990, \$82 in 1989, and \$62 in 1988. All other transactions with related companies, and balances due to or from related companies, were not material in amount.
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I Plant Properties

Plant Properties

	1990	1989
Land	\$ 310	\$ 281
Land and waterway improvements	551	492
Buildings	1,892	1,623
Transportation and construction equipment	163	159
Machinery and equipment	12,238	11,002
Utility and supply lines	1,220	1,066

	1990	1989
Wells	144	137
Office furniture and equipment	624	468
Mineral reserves	35	31
Other	232	185
Construction in progress	1,740	1,256
Total	\$19,149	\$16,700

ST0929188

NOTES TO FINANCIAL STATEMENTS

The Dow Chemical Company and Subsidiaries

In millions, except for share amounts

J Leased Properties Capital leases of \$79 in 1990 and \$103 in 1989 are included with owned property in the Consolidated Balance Sheet.

Minimum Lease Commitments

	Operating Leases	Capital Leases
1991	\$ 314	\$ 9
1992	279	8
1993	250	12
1994	227	5
1995	215	4
1996 and thereafter	1,075	19
Total minimum lease payments	\$2,360	\$ 57

Rental Expenses Under Operating Leases

	1990	1989	1988
Minimum rentals	\$516	\$360	\$344
Contingent rentals	8	7	5
Less—Sublease rentals	9	8	10
Net	\$515	\$359	\$339

K Notes Payable Notes payable at December 31, 1990 and 1989 consisted of obligations due banks with a variety of interest rates and maturities. There was commercial paper included in notes payable at December 31, 1990 of \$283 on which the weighted average interest rate was

8.5 percent. There was commercial paper included in notes payable at December 31, 1989 of \$1,480, on which the weighted average interest rate was 8.7 percent. During the year the Company refinanced most commercial paper obligations into long-term debt.

L Long-Term Debt and Available Credit Facilities The average interest rate on long-term debt was 8.25 percent in 1990 compared to 8.29 percent in 1989.

Annual installments on long-term debt and capital lease obligations for the next five years are as follows: 1991, \$239; 1992, \$331; 1993, \$349; 1994, \$489; 1995, \$423.

Unused and available credit facilities at December 31, 1990, with various U.S. and

foreign banks totaling \$3,333 (\$1,000 expiring in July 1991, \$1,750 expiring in July 1994, and the remainder expiring at various dates), required the payment of commitment fees.

These facilities are available in support of commercial paper borrowings and working capital requirements. Additional unused credit facilities totaling \$1,421 at December 31, 1990 are available for use by foreign subsidiaries.

ST0929189

In millions, except for share amounts

Long-Term Debt
and Available
Credit Facilities
(continued)

December 31

	1990	1989
Promissory Notes		
5.00%, final maturity 1991	\$ —	\$ 20
10.15%, final maturity 1991	—	150
10.25%, final maturity 1992	100	100
8.75%, final maturity 1993	150	
9.35%, final maturity 2002	200	
9.42%, final maturity 2004	132	138
9.11%, final maturity 2005	105	
8.55%, final maturity 2009	150	150
9.00%, final maturity 2010	150	
9.20%, final maturity 2010	200	
8.48%, final maturity 2015	150	150
Subtotal	\$1,337	\$708

Bonds

7.00%, final maturity 1994, Japanese yen	369	348
6.75%, final maturity 1995, German mark	200	177
5.63%, final maturity 1996, German mark	200	177
10.99%, final maturity 1997, British pound sterling	461	384
4.75%, final maturity 1999, Swiss franc	156	129
6.38%, final maturity 2001, Japanese yen	185	174
Subtotal	\$1,571	\$1,389

December 31

	1990	1989
Debentures		
6.70%, final maturity 1998	27	27
8.88%, final maturity 1998	38	39
8.90%, final maturity 1998	42	48
7.75%, final maturity 1999	28	33
8.85%, final maturity 1999	29	33
7.40%, final maturity 2002	43	43
7.63%, final maturity 2003	41	41
8.50%, final maturity 2005	162	162
8.50%, final maturity 2006	152	160
8.63%, final maturity 2006	200	200
7.88%, final maturity 2007	228	241
8.63%, final maturity 2008	262	271
Subtotal	\$1,252	\$1,298

Other Facilities—Various Rates and Maturities

Foreign currency loans	290	181
U.S. dollar loans	32	52
Medium term notes	511	
Pollution control/industrial revenue bonds	475	478
Unexpended construction funds	(73)	(87)
Capital lease obligations	37	44
Subtotal	\$1,272	\$ 668
Total debt	5,432	4,063
Less unamortized debt discount	223	208
Total long-term debt	\$5,209	\$3,855

M Stockholders' Equity

The authorized capital stock consists of 250 million preferred shares with a par value of \$1.00 per share (1.6 million were issued in 1989), and 500 million shares of common stock with a par value of \$2.50 per share.

There were no significant restrictions limiting the availability of dividend payments.

Undistributed earnings of 20%-50% owned companies included in retained earnings were \$525 and \$417 at December 31, 1990 and 1989, respectively.

In computing earnings per share, no adjustment was made for common shares issuable under award, option and stock purchase plans, or conversion of preferred shares issued, because there would be no material dilutive effect.

The number of treasury shares purchased were 1 million in 1990, 8 million in 1989, and 12 million in 1988, and the number of treasury shares sold to employees was 2 million in 1990, and 3 million in 1989.

Number of Issued Shares

In thousands	1990	1989	1988
Beginning of the year	327,126	218,058	216,337
Sold to employees	—	26	1,721
Stock split 3:2		109,042	
End of the year	327,126	327,126	218,058

Reserved Treasury Stock

In thousands	1990	1989	1988
Stock options and award plans	11,006	9,051	10,613
Employees' stock purchase plan	596	1,150	1,023
Total shares reserved	11,602	10,201	11,636

In millions, except for share amounts

**N Pension Plans and
Other Postemployment
Benefits**

The Company has defined benefit pension plans which cover employees in the U.S. and a number of foreign countries. The Company's funding policy is to contribute annually, at a rate that is intended to approximate a level percentage of compensation for the covered employees, to those plans where pension laws and economics either require or encourage funding.

The U.S. funded plan is the largest plan. Its benefits are based on length of service and the employee's three highest consecutive years of compensation. The weighted-average discount rate and rate of increase in future compensation levels used in determining the actuarial present value of projected benefit obligation were 8.75 and 6 percent, respectively, for 1990 and 8.375 and 6 percent, respectively, for 1989. The expected long-term rate of return on assets was 8 percent for both years.

All other pension plans used assumptions in determining the actuarial present value of projected benefit obligations that are consistent with (but not identical to) those of the U.S. plan.

The funded status of fully funded, significant defined benefit plans for the Company is as follows:

Fully Funded Plans at December 31

	1990	1989
Accumulated benefit obligation, including vested benefits of \$(2,307) in 1990 and \$(2,245) in 1989	\$(2,478)	\$(2,398)
Projected benefit obligation for services rendered to date	(3,136)	(3,065)
Plan assets at market value, primarily listed stocks and bonds	3,434	3,495
Plan assets in excess of projected benefit obligation	298	430
Unrecognized transition obligation	46	50
Unrecognized (gain) from experience favorable to assumptions	(276)	(440)
Prior service cost not yet recognized in pension cost	16	6
Prepaid pension cost	\$ 84	\$ 46

The funded status of partially funded, significant defined benefit plans for the Company is as follows:

Partially Funded Plans at December 31

	1990	1989
Accumulated benefit obligation, including vested benefits of \$(100) in 1990 and \$(99) in 1989	\$(106)	\$(106)
Projected benefit obligation for services rendered to date	(179)	(181)
Plan assets at market value	13	11
Plan assets (less than) projected benefit obligation	(166)	(170)
Unrecognized transition obligation	34	33
Unrecognized (gain) loss from experience favorable to assumptions	(36)	5
Prior service cost not yet recognized in pension cost	6	1
Additional minimum liability	(1)	(14)
Accrued pension cost	\$(163)	\$(145)

The net periodic pension cost for all significant defined benefit plans are as follows:

Net Periodic Pension Cost

	1990	1989	1988
Service cost—benefits earned during the period	\$113	\$ 96	\$ 91
Interest cost on projected benefit obligation	265	248	218
(Return) loss on assets	33	(580)	(299)
Amortization and deferred amounts	(272)	369	102
Employer contributions to the plans	(8)	(7)	(6)
Net periodic pension expense	\$131	\$126	\$106

ST0929191

In millions, except for share amounts

Pension Plans and Other
Postemployment Benefits
(continued)

In addition to the net periodic pension cost, in 1988 a pretax charge of \$62 was made for the net present value of increased monthly pension benefits to certain current Dow retirees in the U.S. and Canada.

Pension plans in the nature of defined contribution plans now cover employees in Australia, New Zealand, Spain, United Kingdom and some U.S. subsidiaries. In addition, employees in the U.S. are eligible to participate in defined contribution plans (Employee Savings Plans) by contributing a portion of their compensation. The Company matches compensation, depending on Company profit levels. Contributions charged to income for defined contribution plans were \$65 in 1990, \$41 in 1989 and \$33 in 1988.

In addition to providing pension benefits, the Company provides certain health care and life insurance benefits to retired employees. The Company may modify these benefits at any

time. The cost of retiree health care and life insurance benefits is currently recognized as an expense as benefits are paid. These costs totaled \$47 in 1990, \$43 in 1989 and \$39 in 1988.

The Financial Accounting Standards Board Statement No. 106 "Employers' Accounting for Postretirement Benefits Other Than Pensions" mandated a change to the accrual method of accounting for retiree health care and life insurance benefits to be effective for fiscal years beginning after December 15, 1992. The Company plans to adopt the new method in 1993. The statement allows the transition obligation to be recognized in the period of initial adoption or delayed over a 20 year period beginning in the period of initial adoption. The Company has not yet determined which method will be used. The impact of this new standard on the operating results in the year of initial adoption is not known at this time.

In millions, except for share amounts

O Stock Option and Award Plans	Stock option plans and management incentive awards are described in the Company's Proxy Statement of March 1991. Options under all plans are granted at market price of the shares on the date of the grants. Stock options granted were 2,549 thousand in 1990, 2,428 thousand in 1989 and 2,548 thousand in 1988. Stock options exercised were 258 thousand at prices	ranging from \$18.46 to \$60.88 in 1990, 993 thousand at prices ranging from \$14.88 to \$60.88 in 1989 and 777 thousand at prices ranging from \$14.88 to \$36.04 in 1988. Summarized information regarding the Company's award and option plans at December 31 is as follows:
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Stock Transactions

In thousands	1990		1989	
	Number Shares	Price Range	Number Shares	Price Range
Outstanding at year end:				
Stock options	8,008	\$18.46-\$60.88	6,746	\$18.46-\$60.88
Deferred stock	647		685	
Stock options exercisable currently	6,470		4,332	
Total shares reserved	11,006		9,051	
Shares available for future grant	1,361		1,620	

The expense accruals for the various incentive plans relate to the net earnings performance of the Company against predetermined targets and/or the market value per share of the Company's common stock at year-end. Aggregate amounts charged to expense for management incentive awards were \$15 in 1990, \$92 in 1989 and \$55 in 1988.

The Company made offerings of common stock to its employees, excluding directors, in

1990 and 1989 at \$55.00 and \$50.66 per share, respectively, payable generally through payroll deductions. Unfilled subscriptions, cancelable at the option of the employee, were 590 thousand and 1,150 thousand shares at December 31, 1990 and 1989, respectively. Partial payments on these subscriptions aggregating \$20 and \$38 at December 31, 1990 and 1989, respectively, are included in current liabilities.

P Commitments and Contingent Liabilities	The Company and its subsidiaries are parties to a number of claims and lawsuits arising out of the normal course of business with respect to commercial matters, including product liabilities, governmental regulation including environmental matters, 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. The amounts of ultimate liability thereunder are indeterminable	at December 31, 1990. The Company is also a party to several lawsuits arising out of insurance policies issued to the Company and its subsidiaries. These lawsuits involve the recoverability under these insurance policies of certain losses and expenses incurred by the Company. In the opinion of management, resolution of these matters will not materially affect the consolidated financial position or results of operations of the Company and its subsidiaries.
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ST0929193

In millions, except for share amounts

Commitments and
Contingent Liabilities
(continued)

The Company designs and builds most of its capital projects in-house and hence does not have major capital commitments, other than for the purchase of materials from fabricators. Similarly, the Company has various purchase commitments for materials and supplies used in production. In general, such commitments are at prices not in excess of current market. While certain of these commitments are for quantities in excess of the Company's present requirements, they are not expected to have any material adverse effect on the consolidated financial position or results of operations of the Company.

The Company has an equity investment in a hydrocracker in the Netherlands through which it tolls hydrocarbon raw materials.

The Company also guarantees a portion of the debt of the venture, proportional to its ownership. The guarantee amounted to \$102 at December 31, 1990.

The Company has agreed to guarantees and commitments totaling \$103 in order to support the Midland Cogeneration Venture sale and leaseback transaction. The Company is a limited partner in the Midland Cogeneration Venture Limited Partnership and received its share of the proceeds from the sale of the facility.

A Canadian subsidiary has entered into two 20-year agreements to purchase 89 percent of the output of an ethylene plant (Plant No. 1) and 40 percent of the output of a second ethylene plant (Plant No. 2). The purchase price of the output is determined on a cost-of-service basis which, in addition to covering all oper-

ating expenses and debt service costs, provides the owner of the plants with a specified return on capital. Total purchases under the agreements were \$243, \$257 and \$248 in 1990, 1989 and 1988, respectively. The following table shows the fixed and determinable portion of obligations under such purchase commitments (at December 31, 1990 exchange rates) net of non-cancelable sales commitments and interest.

Fixed and Determinable Obligations

1991	\$ 74
1992	89
1993	89
1994	90
1995	83
1996 through expiration of contracts	330
Total	\$755

Additionally, the owner of these plants, the Alberta Gas Ethylene Company Ltd. (AGEC), has borrowings outstanding of \$115 which were used for the construction of Plant No. 1 and are guaranteed as to principal and interest by the Company. The Company has severally guaranteed the performance of its subsidiaries under agreements to purchase 40 percent of the output of Plant No. 2 and to fund its share of any cash deficiencies (as defined in the agreement) in the plant's operating and debt service costs.

At December 31, 1990, the Company had other outstanding take or pay obligations of \$1,199, for terms extending from one to twenty years.

NOTES TO FINANCIAL STATEMENTS

The Dow Chemical Company and Subsidiaries

In millions, except for share amounts

Q Combined Financial Statements of Principal 50 Percent Owned Companies

The summarized financial statements represent the combined accounts of principal companies in which Dow owns a 50 percent interest. Amounts presented include the assets, liabilities, revenues and expenses of the following major international companies: Dow Corning Corporation, a manufacturer of silicone and silicone products; Dowell Schlumberger companies, which perform services for oil and gas

wells, and Gurit-Essex AG, a Swiss company acquired in October 1988, which supplies European automobile manufacturers with proprietary specialty products.

The Company's equity interest in these companies was \$789 and \$673 in 1990 and 1989, respectively, and its interest in earnings was \$146, \$119 and \$89 in 1990, 1989 and 1988, respectively.

Combined Balance Sheet

	1990	1989
Current assets	\$1,266	\$1,143
Plant property—net	1,494	1,261
Other assets	106	84
Total assets	\$2,866	\$2,488
Current liabilities	\$ 697	\$ 559
Long-term debt	283	277
Other liabilities	307	303
Stockholders' equity	1,577	1,349
Total liabilities and stockholders' equity	\$2,866	\$2,488

Statement of Combined Income and Retained Earnings

	1990	1989	1988
Sales	\$2,750	\$2,415	\$2,231
Cost of sales	1,936	1,670	1,601
Other expenses—net	435	399	367
Income before provision for taxes	379	346	263
Taxes on income	88	105	85
Net income	291	241	178
Retained earnings at Jan 1	842	730	624
Dividends declared	(84)	(129)	(72)
Retained earnings end of year	\$1,049	\$ 842	\$ 730

October 1988 for Gurit-Essex AG

ST0929195

In millions, except for share amounts

R Industry Segments
and Geographic Areas

The Company conducts its worldwide operations through separate geographic area organizations which represent major markets or combinations of related markets. Transfers between areas are valued at cost plus a markup.

Aggregation of products is generally made on the basis of process technology, end-use markets and channels of distribution. The Chemicals and Performance Products and Hydrocarbon and Energy segments are described in the Corporate Profile section on

page 22. The Plastic Products segment, also described in the same section, is comprised of thermoplastics, thermosets and fabricated products. Consumer Specialties include agricultural chemicals, pharmaceuticals, and food protection, cleaning and personal care products.

The Unallocated segment includes activities of the insurance companies, the finance operations, and unallocated overhead cost variances.

Transfers between industry segments are generally valued at standard cost.

	Chemicals & Perform.	Plastic Prods	H&E	Consumer Specialties	Unallo- cated	Corporate and Elim	Consoli- dated
Industry Segment Results							
1990							
Sales to unaffiliated customers	\$5,088	\$7,392	\$2,210	\$5,053	\$ 30		\$19,773
Intersegment transfers	816	274	2,440	1	5	\$(3,536)	-
Operating income	779	990	156	832	61		2,818
Identifiable assets	4,597	5,970	3,037	6,556	860	2,933	23,953
Depreciation	434	350	212	159	15		1,170
Capital expenditures	637	746	516	220			2,119
1989							
Sales to unaffiliated customers	\$5,407	\$6,994	\$1,778	\$3,407	\$ 14		\$17,600
Intersegment transfers	729	224	2,020	2	8	\$(2,983)	-
Operating income	1,718	1,586	239	462	5		4,010
Identifiable assets	3,918	5,105	3,021	6,602	729	2,633	22,008
Depreciation	337	302	231	108	12		990
Capital expenditures	458	707	416	175			1,756
1988							
Sales to unaffiliated customers	\$5,190	\$6,938	\$1,502	\$3,029	\$ 23		\$16,682
Intersegment transfers	469	258	1,886	27	10	\$(2,650)	-
Operating income (loss)	1,529	1,886	220	540	(126)		4,049
Identifiable assets	3,822	4,478	2,326	2,759	679	2,009	16,073
Depreciation	327	254	240	109	3		933
Capital expenditures	349	471	265	179			1,264

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NOTES TO FINANCIAL STATEMENTS

The Dow Chemical Company and Subsidiaries

In millions, except for share amounts		United States	Europe	Rest of World	Corporate Elimination	Consolidated
Geographic Area Results						
1990						
Sales to unaffiliated customers		\$ 9,494	\$6,278	\$4,001		\$19,773
Transfers between areas		1,344	418	361	\$(2,123)	—
Operating income		1,622	692	504		2,818
Identifiable assets		13,074	6,654	4,225		23,953
Gross plant properties		10,037	6,108	3,004		19,149
Capital expenditures		1,063	817	239		2,119
1989						
Sales to unaffiliated customers		\$8,084	\$5,521	\$3,993		\$17,600
Transfers between areas		1,157	331	194	\$(1,682)	—
Operating income		1,876	1,160	974		4,010
Identifiable assets		12,223	5,467	4,318		22,008
Gross plant properties		9,162	4,733	2,805		16,700
Capital expenditures		955	562	239		1,756
1988						
Sales to unaffiliated customers		\$7,497	\$5,147	\$4,038		\$16,682
Transfers between areas		1,109	323	381	\$(1,813)	—
Operating income		1,651	1,283	1,115		4,049
Identifiable assets		7,557	4,229	4,287		16,073
Gross plant properties		8,083	3,970	2,645		14,698
Capital expenditures		724	345	195		1,264

S Sale of Receivables The Company sold certain trade receivables with limited recourse to financial institutions for cash. At December 31, 1990 and 1989, the amount of trade receivables sold was \$103 and \$136, respectively.

T Other Investments	1990		1989	
	Cost	Market Value	Cost	Market Value
Bonds/notes	\$ 599	\$ 593	\$ 554	\$ 556
Equities	484	512	345	412
Other*	28	31	200	200
Total	\$1,111	\$1,136	\$1,099	\$1,168

*Other is composed of items which individually are not material and market value approximates cost. Marketable debt securities are carried at amortized cost. Marketable equity securities are carried at the lower of cost or market. The cost of investments sold is determined by the specific identification method.

ST0929197

In millions, except for share amounts

U Financial Instruments

The Company is active in the foreign exchange forward and options' market to hedge its various economic and transaction foreign currency exposures. In addition to the U.S. dollar, the Company trades in most European currencies, as well as the Japanese yen, the Canadian dollar and the Latin American currencies. At December 31, 1990, the Company had outstanding forward contracts that net to \$81. The Company is exposed to credit losses in the event of counterparty nonperformance, but the Company has spread this risk among many counterparties and does not anticipate such losses.

The Company participates in the interest derivative markets to manage its exposure to interest rate fluctuations. The notional princi-

pal on open swap and forward rate contracts at December 31, 1990, totalled \$1.7 billion with a weighted average remaining life of 3 years.

The Company utilizes forward rate agreements primarily to convert some floating rate debt to fixed rate debt. Interest rate swaps convert some fixed rate debt to a floating basis as well as convert some floating rate debt to a fixed basis. Similar to foreign exchange contracts, credit loss from counterparty nonperformance is not anticipated.

The Company's global orientation in diverse businesses with diverse customers and suppliers minimizes concentrations of credit risks. No concentration of credit risk exists at December 31, 1990.

ELEVEN-YEAR SUMMARY OF SELECTED FINANCIAL DATA

The Dow Chemical Company and Subsidiaries

In millions, except for share amounts (Unaudited)		1990
Summary of operations	Net sales	\$19,773
	Cost of sales	13,035
	Insurance and finance company operations—net expense (income)	(65)
	Research and development expenses	1,136
	Promotion and advertising expenses	639
	Selling and administrative expenses	2,084
	Amortization of intangible assets and restructuring charge	126
	Operating income	2,818
	Investment and sundry income (expense)	278
	Interest expense—net	(533)
	Income before provision for taxes	2,563
	Taxes on income	978
	Minority interests' share in income	201
	Preferred stock dividend	6
	Net income available for common stockholders	\$ 1,378
	Per share of common stock (dollars) ¹ :	
	Income before cumulative effect of accounting change	\$ 5.10
	Cash dividends declared per common share	\$ 2.60
	Cash dividends paid per common share	\$ 2.60
	Average common shares outstanding (thousands) ¹	269,899
	Convertible preferred shares outstanding (thousands) ¹	1,602
Year-end financial position	Total assets	\$23,953
	Working capital	2,265
	Property, plant and equipment—gross	19,149
	Property, plant and equipment—net	8,249
	Long-term obligations	6,533
	Total debt	6,642
	Stockholders' equity	8,728
Financial ratios	Research and development expense as percent of sales	5.7%
	Income before provision for taxes as percent of sales	13.0%
	Return on average stockholders' equity	16.5%
	Book value per common share ¹	\$ 32.33
	Debt as a percentage of total capitalization excluding temporary equity	41.3%
General	Capital expenditures	\$ 2,119
	Depreciation	1,170
	Total taxes ²	1,570
	Wages and salaries paid	3,104
	Cost of employee benefits ³	690
	Number of employees at year-end (thousands)	62.1
	Number of stockholders at year-end (thousands)	109.4

¹Adjusted for stock splits.

²FICA tax is included in total taxes and cost of employee benefits.

³Reclassified. See Note A.

⁴Includes restructuring charge of \$592 in 1985; \$157 in 1984; \$58 in 1983.

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1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
\$17,600	\$16,682	\$13,377	\$11,113	\$10,500	\$10,679	\$10,442	\$ 9,895	\$11,125	\$10,272
10,478	9,806	8,660	7,727	8,031	8,282	8,460	8,209	8,921	7,980
(59)	(28)	20	(57)	(55)	(28)	(16)	(14)	(18)	(30)
873	772	670	605	547	507	492	460	404	314
494	415	329	309	318	195	164			
1,758	1,625	1,406	1,190	969	860	826	953	939	766
46	43	27	27	609 ^a	162 ^a	62 ^a	4	4	1
4,010	4,049	2,265	1,312	81	701	454	283	875	1,241
259	90	141	179	263	310	352	412	249	302
(334)	(284)	(279)	(269)	(306)	(343)	(318)	(406)	(430)	(298)
3,935	3,855	2,127	1,222	38	668	488	289	694	1,245
1,436	1,450	882	489	(23)	107	158	(33)	160	431
12	7	5	1	3	1	2	1	4	9
1									
\$ 2,486	\$ 2,398	\$ 1,240	\$ 732	\$ 58	\$ 560	\$ 328	\$ 321	\$ 530	\$ 805
\$ 9.20	\$ 8.51	\$ 4.31	\$ 2.55	\$.20	\$ 1.93	\$ 1.12	\$ 1.11	\$ 1.88	\$ 2.95
\$ 2.37	\$ 1.73	\$ 1.43	\$ 1.27	\$ 1.20	\$ 1.20	\$ 1.20	\$ 1.20	\$ 1.20	\$ 1.10
\$ 2.18	\$ 1.63	\$ 1.40	\$ 1.23	\$ 1.20	\$ 1.20	\$ 1.20	\$ 1.20	\$ 1.20	\$ 1.07
270,243	281,891	287,504	287,088	285,579	290,693	292,499	289,836	281,942	273,243
1,602									
\$22,008 ¹	\$16,073 ¹	\$14,230 ¹	\$12,553	\$14,405	\$13,194	\$13,869	\$13,521	\$14,128	\$12,817
909 ¹	2,218 ¹	2,307 ¹	1,749	1,281	1,193	1,283	1,780	1,959	1,730
16,700 ¹	14,698 ¹	13,502	12,715	11,875	11,256	11,524	11,199	10,984	9,873
7,080 ¹	5,938 ¹	5,551	5,347	5,127	5,173	5,695	5,961	6,174	5,672
4,962 ¹	4,182 ¹	4,568 ¹	3,795	3,706	3,084	3,080	3,755	4,033	3,506
6,141	3,770	3,958	3,683	3,661	3,154	3,498	3,685	4,360	4,174
7,957	7,255	5,769	5,178	4,806	5,040	5,051	5,051	4,980	4,563
5.0%	4.6%	5.0%	5.4%	5.2%	4.7%	4.7%	4.6%	3.6%	3.1%
22.4%	23.1%	15.9%	11.0%	.4%	6.3%	4.7%	2.9%	6.2%	12.1%
32.7%	36.8%	22.7%	14.7%	1.2%	11.1%	6.5%	6.4%	11.1%	19.0%
\$ 29.55	\$ 26.35	\$ 20.31	\$ 18.05	\$ 16.85	\$ 17.67	\$ 17.19	\$ 17.34	\$ 17.53	\$ 16.65
41.8%	34.0%	40.5%	41.4%	43.1%	38.4%	40.6%	41.8%	46.3%	47.3%
\$ 1,756 ¹	\$ 1,264 ¹	\$ 995	\$ 890	\$ 806	\$ 781	\$ 630	\$ 829	\$ 1,176	\$ 1,184
990	933	814	744	977	908	841	870	806	728
1,907	1,863	1,237	782	275	400	444	271	464	686
2,482	2,314	2,045	1,800	1,663	1,548	1,627	1,668	1,675	1,468
554	518	474	464	387	382	381	390	361	339
62.1	55.5	53.1	51.3	53.2	49.8	54.5	56.6	63.8	56.8
105.4	105.8	99.0	106.3	122.6	133.7	136.4	144.9	143.6	137.0

PRODUCT SEGMENT SALES ANALYSIS AND REVIEW
OF MARKET PRICE PER SHARE OF COMMON STOCK

The Dow Chemical Company and Subsidiaries

In millions, except for share amounts (Unaudited)		1990	1989	1988
Sales of Principal Products and Services				
Chemicals and Performance Products	Chemicals and Metals	\$ 3,378	\$ 3,844	\$ 3,721
	Performance Products	1,710	1,563	1,469
	Total Chemicals and Performance Products	\$ 5,088	\$ 5,407	\$ 5,190
Plastic Products	Thermoplastics	\$ 3,995	\$ 3,781	\$ 4,060
	Thermosets	2,512	2,370	2,059
	Fabricated Products	885	843	819
	Total Plastic Products	\$ 7,392	\$ 6,994	\$ 6,938
Hydrocarbons and Energy	Hydrocarbons and Energy	\$ 2,210	\$ 1,778	\$ 1,502
Consumer Specialties	Agricultural Products	\$ 1,497	\$ 1,023	\$ 959
	Pharmaceuticals	2,622	1,418	1,273
	Consumer Products	934	966	797
	Total Consumer Specialties	\$ 5,053	\$ 3,407	\$ 3,029
Unallocated	Miscellaneous	\$ 30	\$ 14	\$ 23
Total		\$19,773	\$17,600	\$16,682

Eleven-Year Review of Market Price
Per Share of Common Stock¹

In dollars	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
\$100											
90											
80											
70											
60											
50											
40											
30											
20											
10											
0											
High	\$26.17	\$26.00	\$19.25	\$25.59	\$23.00	\$27.92	\$41.17	\$73.08	\$62.67	\$72.25	\$75.75
Close on December 31	21.42	17.50	17.25	22.25	18.33	27.33	39.00	60.00	58.50	71.38	47.50
Low	18.83	15.59	13.09	16.67	17.17	18.00	26.59	39.17	51.17	55.50	37.00

¹Adjusted for stock splits

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BOARD OF DIRECTORS

ST0929202

Bernard B. Butcher, 62
Senior Consultant
Director since 1983



Bernard B. Butcher

Andrew J. Butler, 57
Vice President, President
Dow Europe
Director since 1984



Andrew J. Butler

Willie D. Davis, 56
President and
Chief Executive Officer,
All Pro Broadcasting, Inc.
Director since 1983



Willie D. Davis

Herbert H. Dow, 63
Vice President
Director since 1987



Herbert H. Dow

Michael L. Dow, 56
Chairman,
General Aviation, Inc.
Director since 1988



Michael L. Dow

Joseph L. Downey, 54
Vice President, Chairman,
Dow Brands Inc., and
Dow Chemical
Director since 1989



Joseph L. Downey

Enrique C. Falla, 55
Former Vice President and
Chief Financial Officer
Director since 1985



Enrique C. Falla

Barbara H. Franklin, 51
President, 3M
Chief Executive Officer,
Franklin Associates
Director since 1987



Barbara H. Franklin

Hunter W. Henry, 62
Senior Consultant
Director since 1976



Hunter W. Henry

Robert M. Keil, 64
Senior Vice President
Director since 1989



Robert M. Keil

Keith R. McKennon, 57
Executive Vice President,
Technology
Director since 1984



Keith R. McKennon

William F. Neely, 59
Vice President, Corporate
Director, Manufacturing
and Engineering
Director since 1988



William F. Neely

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Chairman of the Board
Director since 1977



Paul F. Orefice

Frank P. Popoff, 55
President and
Chief Executive Officer
Director since 1982



Frank P. Popoff

Donald A. Rikard, 63
Senior Consultant
Director since 1982



Donald A. Rikard

Harold T. Shapiro, 55
President,
Princeton University
Director since 1987



Harold T. Shapiro

Enrique J. Sosa, 51
Vice President, Director,
Corporate Product Department
Director since 1990



Enrique J. Sosa

William S. Stavropoulos, 51
Vice President, President,
Dow U.S.A.
Director since 1990



William S. Stavropoulos

Joseph G. Temple, Jr., 61
Chairman and
Chief Executive Officer,
Merrill Dow Inc.
Director since 1979



Joseph G. Temple, Jr.

Committees of the Board of Directors

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M. L. Dow
H. T. Shapiro

Committee on Directors

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W. D. Davis
R. M. Keil
F. P. Popoff
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W. D. Davis
M. L. Dow
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R. M. Keil
S. R. McKennon
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R. L. Kase, ex officio
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D. A. Rikard
H. T. Shapiro
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T. K. Smith, ex officio

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President and CEO Frank P. Popoff	Vice President—Environment, Health & Safety David T. Buzzelli	Vice President and Controller Roger L. Kesseler	Vice President William S. Stavropoulos	Assistant Secretary Lois J. Hoerlein
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Financial Vice President Enrique C. Falla	Vice President Joseph L. Downey	Vice President William J. Neely	Assistant Controller William C. Schmidt	Assistant Treasurer John S. Walshaw
Senior Vice President Robert M. Keil	Vice President and General Counsel Wayne M. Hancock	Vice President and Treasurer J. Pedro Reinhard	Assistant Secretary R. William Barker	Auditor James F. Hicks

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Yves Bobillier Executive Vice President, Dow Europe, Plastics	Enrique C. Falla Financial Vice President and Chief Financial Officer	Roger L. Kesseler Vice President and Controller	Donald S. Pirkle Vice President, Information Systems, Executive Department	Enrique J. Sosa Vice President and Director of the Corporate Product Department
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Andrew J. Butler Vice President; President, Dow Europe	John L. Hagaman President and Chief Executive Officer, DowElanco	William J. Neely Vice President and Corporate Director of Manufacturing and Engineering	Ernesto Ramon President, Dow Latin America	Denis Wilcock President and Chief Executive Officer, Dow Canada
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Anthony J. Carbone Group Vice President, U.S. Area; Plastics/Hydrocarbons	Jack G. Helfenstein Executive Vice President, Dow Europe; Chemicals and Performance Products	Paul M. Pankratz Vice President, Hydrocarbons & Energy and Materials Management, Corporate Product Department	Lee A. Shobe President and Chief Executive Officer, DowBrands Inc.	
Fred P. Corson Director, Research & Development			Thomas K. Smith Vice President, U.S. Area, Director, Public Affairs	

Stockholder Inquiries	Inquiries about stock, changes in name or address and other stock-related questions may be directed to:	Ameritrust Company National Association P.O. Box 6477 Cleveland, OH, U.S.A. 44101-1477 Telephone: 800-542-7792 (in the U.S.) or 216-737-5745
	Inquiries about Dow's business performance may be directed to:	The Dow Chemical Company 2030 Dow Center Midland, MI, U.S.A. 48674 Telephone: 800-258-9002 (in the U.S.) or 517-636-1463
Annual Meeting	The 1991 Annual Meeting of Stockholders will be conducted at 2 p.m. (EDT) Thursday, May 9, at the Midland Center for the Arts, Midland, MI.	A formal notice of the meeting, with a proxy statement and proxy form, will be mailed to each stockholder separately from this report.
Form 10-K	The Company's annual report to the Securities and Exchange Commission on Form 10-K will be provided without charge to any stockholder requesting it in writing or by telephone. Please contact:	Dow Chemical U.S.A. Customer Information Center P.O. Box 1206 Midland, MI, U.S.A. 48641-1206 Telephone: 800-258-2436 (in the U.S.) or 517-636-8914
Annual Report	The 1990 Annual Report of The Dow Chemical Company will be mailed without charge to those requesting it in writing or by telephone. Please contact:	Dow Chemical U.S.A. Customer Information Center P.O. Box 1206 Midland, MI, U.S.A. 48641-1206 Telephone: 800-258-2436 (in the U.S.) or 517-636-8914
Transfer Agents	Ameritrust Company National Association P.O. Box 6477 Cleveland, OH, U.S.A. 44101-1477 Telephone: 800-542-7792 (in the U.S.) or 216-737-5745	The Royal Trust Company P.O. Box 7500, Station A Toronto, Ontario, Canada M5W 1P9 Telephone: 800-387-0825 (in Canada) or 416-981-8997
Registrars	Ameritrust Company National Association P.O. Box 6477 Cleveland, OH, U.S.A. 44101-1477	Montreal Trust Company 15 King Street West Toronto, Ontario, Canada M5H 1B4
Stock Exchange Listings and Trading Privileges	NYSE Symbol: DOW New York, Midwest, Pacific, Amsterdam, Antwerp, Basel, Bern, Brussels, Dusseldorf, Frankfurt,	Geneva, Hamburg, Lausanne, London, Paris, Tokyo, Toronto, Zurich.
Dividend Reinvestment Plan	An automatic dividend reinvestment plan is available to all Dow stockholders. Information can be obtained by writing to:	Ameritrust Company National Association P.O. Box 6477 Cleveland, OH, U.S.A. 44101-1477
Cassette Tapes Available	Audio cassette tapes of the 1990 Annual Report can be obtained for the blind by writing or telephoning:	Manager, Financial Communications The Dow Chemical Company 2030 Dow Center Midland, MI, U.S.A. 48674 Telephone: 517-636-1463

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