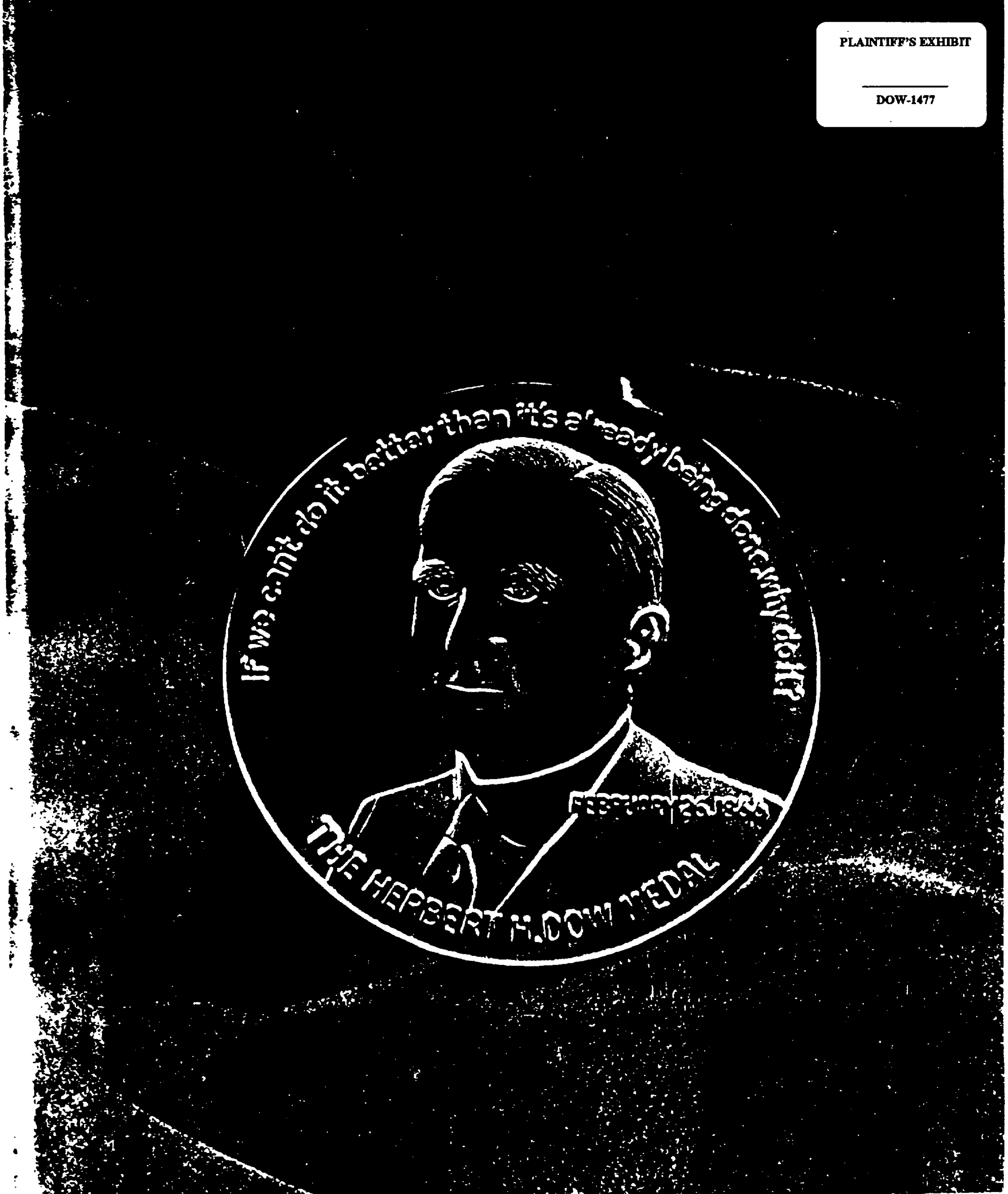
1979 Annual Report

DOW

PLAINTIFF'S EXHIBIT

DOW-1477



Contents

Page

About the Cover

In the spirit of the company's founder, the new Herbert H. Dow Medal highlights the prolific inventiveness of Dow scientists. See the story beginning on page twelve.

About the Company...

The Dow Chemical Company is the seventh largest chemical company in the world in terms of sales, second largest in the United States. It ranked 27th in sales in 1978 among the Fortune Magazine 500 leading U.S. industrial companies—17th in net income. At year's end, its shares were valued on the market at $6.44 billion, 17th among companies listed on the New York Stock Exchange.

Dow makes a broad range of more than two thousand products in the fields of chemicals, plastics, metals, consumer products and pharmaceuticals. The company is a significant producer of most of the products it makes. Some of the major products are polystyrene, polyethylene, chlorine, caustic soda, vinyl chloride, propylene and ethylene glycols and oxides, styrene-butadiene latex, magnesium and *Styrofoam* brand plastic foam.

Headquartered in Midland, Michigan, where it was founded in 1897, Dow and its wholly and principal partly owned companies have 121 manufacturing locations and 162 sales offices around the world. Management is organized on a geographical basis into six areas: United States, Europe, Canada, Pacific, Latin America and Brazil. In 1979, for the first time, more than 50 percent of the company's sales were outside the United States.

Dow's growth is reflected in its dividends. Payments have increased each year for the last 20 consecutive years, at a rate far faster than the inflation rate of the United States and many other major economies, yet remain a conservative 34 percent of 1979's net income.

To fuel its growth, the company has invested heavily in capital equipment. Dow has spent more than $5.6 billion for new plants in the past five years. The company finances its growth largely through retained earnings, depreciation and debt, and has refrained from issuing new stock. The number of shares outstanding (adjusted for stock splits) is no more than it was 10 years ago.

Dow has 55,900 employees, 21,800 of them outside the United States. They're productive: sales averaged more than $165,000 per employee in 1979.

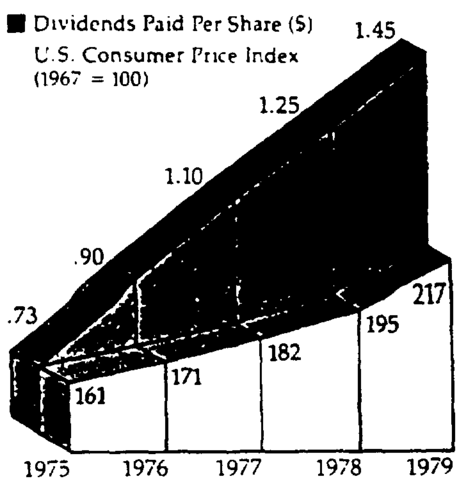
And management is stable: the principal officers have been with the company for an average of 31 years. All of the chief executives have been selected from within the company.

Dow's principal objective is "to seek maximum long-term profit growth as the primary means to ensure the prosperity and well-being of our employees, stockholders and our customers by making products that the people of the world need, and to do so better than anyone else." "Product Stewardship" describes the company's concern and program for the safe manufacture, handling, use and disposal of its products by itself, its customers and consumers.■

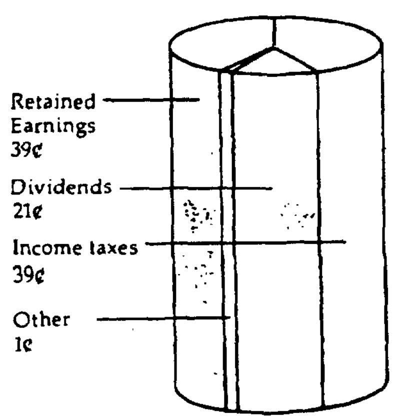
Highlights of the Year

	1979	1978	% change	10-year compound annual % growth
	(in millions unless otherwise stated)			
Net sales	$9,255.4	$6,887.6	+34.4%	+17.8%
Net income	783.9	575.2	+36.3%	+18.6%
U.S. and foreign income taxes	515.0	383.9	+34.1%	+20.2%
Net income per share (in dollars)	4.33	3.16	+37.0%	+18.7%
Dividends paid per share (in dollars)	1.45	1.25	-16.0%	+13.2%
Average shares outstanding	181.1	182.1	− 0.5%	—
Stockholders (in thousands, year-end)	141.5	136.7	+ 3.5%	+ 4.6%
Employees (in thousands, year-end)	55.9	53.5	+ 4.5%	+ 1.7%
Wages, salaries and benefits	$1,597.7	$1,375.8	+16.1%	+13.1%

Dow Dividends Vs. Inflation



Where the Profit Dollar Went — Distribution of Pre-Tax Income



To Our Stockholders

MIDLAND, MICHIGAN. The Dow Chemical Company today reported record income taxes of $515 million for 1979, up 34 percent from prior year levels. Other major taxes were $233 million, making Dow's total 1979 tax bill exceed $748 million

Wages, salaries, and benefits paid by the company totalled $1 6 billion, up 16 percent from 1978 levels, due in part to increased employment

In addition, Dow continued its major capital expansion program, investing more than $1.2 billion in new capital projects.

Dow shareholders enjoyed a 16 percent dividend increase over 1978, marking the 20th consecutive year that per share dividends have increased.

Profits, up 36 percent from 1978 levels, were again insufficient to meet the tax, dividend, and capital expenditure requirements of the business, and Dow expects to borrow several hundred million dollars in 1980.

Elsewhere in this annual report you will find highlights of Dow's 1979 performance, complete with the usual charts, graphs, and comparisons. Those comparisons have great value as they focus on performance, profits, and earnings growth; but they can't fully convey the other values that flow from a successful enterprise.

That's why this letter begins with a different kind of year-end statement, and why I want to expand on its content.

Successful companies pay taxes—lots of taxes. Dow incurred more than $748 million in 1979. But that's not the whole story. The taxes our employees incur on their earnings and that our shareholders incur on their dividends are probably in excess of $410 million, which means government collected more than $1.1 billion because Dow was in business during 1979. Incidentally, for those who think senior executives beat the system and pay no taxes, I can report that my tax bill for 1978 was more than half my gross income. Dow (and I) expect a heavy burden. At the same time, we will continue to resist the intrusion of government into our activities, and to challenge wasteful and needless regulation and expense.

Successful companies can properly reward their employees, can increase their employment levels appropriately in good business periods, and can maintain employment levels when times are tough. Dow went through the past decade with no significant layoffs, in striking contrast to many of our competitors and to other Michigan-based industries.

Successful companies can reward their shareholders. Dow has a long and proud tradition of rewarding our owners' investment. Not only is 1979 the 20th consecutive year in which our dividend increased, but Dow has never reduced its dividend since it began paying regular dividends in 1912, a record we believe unparalleled in American manufacturing industry.

Successful companies can reinvest in their business. In our case, that investment totalled more than $1.2 billion in 1979, and will increase in the '80's. Incidentally, for those who wonder whether our activities abroad are good for the United States, I can report that Dow U.S.A. exports in 1979 had a market value of $1.2 billion, and were about $1 billion greater than Dow U.S.A. imports. That's a significant factor in helping the serious balance of payments problem the U.S. faces as it remains hostage to OPEC oil.

Successful companies can afford to spend money on research to find new products and new processes. In our case, some $269 million in 1979. The results are obviously good for Dow, and also get at some of society's fundamental problems. Energy conservation is a good example. Energy saving projects implemented in the past decade are saving Dow worldwide more than 20 million barrels of oil per year in energy equivalents. Annual savings in just one process in our Texas Division amounted to more energy than all 34,100 Dow U.S.A. employees use each year in their personal cars.

Successful companies can use conservative accounting practices and ensure a stable financial base. That's why our pension plan is healthy and why we can elect, as we did in 1979, to increase payments to retirees.

Along with our 55,900 other employees, I'm proud to be a part of Dow, and of what our Company stands for. I believe each of our shareholders also has a right to be proud of Dow's 1979 performance. Your Company can hardly wait to do even better in the '80's.

Paul F Oreffice
President

The Year in Review—

Global Position Helps Dow Achieve Outstanding Year As Soaring Costs and Prices Fail to Dampen Demand

It was an outstanding year for Dow. The upsurge in sales of 34 percent and in net income of 36 percent was the greatest since 1974.

The sales increase was fueled largely by price rises made necessary by huge jumps in energy and hydrocarbon feedstock costs. The cost of hydrocarbons and energy rose 39 percent and further significant increases are expected in 1980. But gains were also made in real terms, as physical volume rose 10 percent. The consistently high demand throughout the year made it possible to restore profit margins from their previously depressed levels in many parts of the world.

The increased volume was reflected in Dow's operating rate, which rose from 79 percent of capacity in 1978 to 84 percent in 1979.

Dow was in an unique position to benefit from robust demand and improving prices. One reason was its global positioning, with 162 sales offices worldwide and plants in 30 countries. In 1979, for the first time, more than half of Dow's sales were outside the United States.

Another reason was Dow's foresight in investing heavily in new manufacturing facilities during the past several years, even though this penalized earnings during those years. One result was that Dow entered 1979 with ample capacity that was relatively new and well-positioned to meet the growing worldwide demand. Capital spending topped one billion dollars for the fourth consecutive year in 1979 and spending is expected to increase modestly for the next several years.

Four major capital projects neared completion: a crude oil processing plant in Texas, an ethylene plant using naphtha as feedstock in Louisiana, a petrochemical complex in Canada and a chloralkali facility in Korea. These four projects alone represent an investment of $1.5 billion.

While the substantial start-up costs for these new facilities will be expensive for the company in 1980, their added capacity represent a timely opportunity for increased sales.

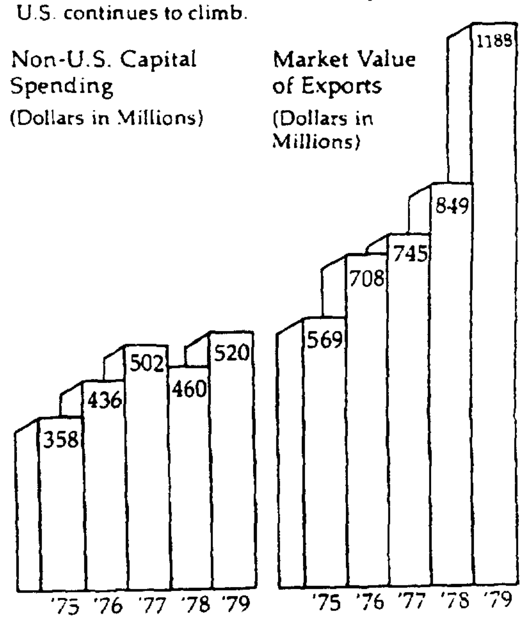
Additional sales capacity can be expected in future years as well. During much of the 1970s, a large percentage of capital spending was devoted to modifying older plants for greater energy conservation and pollution control. Since the bulk of that work is nearing completion, future capital budgets will be more heavily weighted to new production capacity and greater plant efficiency.

Early in the year, turmoil in petrochemical pricing and availability growing out of the Iranian crisis led many U.S., European and Japanese producers to withdraw from such "third markets" as Mexico and other countries in Latin America and Asia. Dow, on the other hand, adhered to its policy of treating key customers equally, regardless of nationality. This international outlook greatly enhanced the company's reputation as a reliable supplier and earned valuable good will among large, and growing, consumers of industrial chemicals and plastic resins.

Dow's research spending rose for the 20th consecutive year and reached $269 million. Research and development, an integral part of the company's organization, has increased its spending over those years at a compound annual rate of 9.6 percent.

Non-U.S. Business

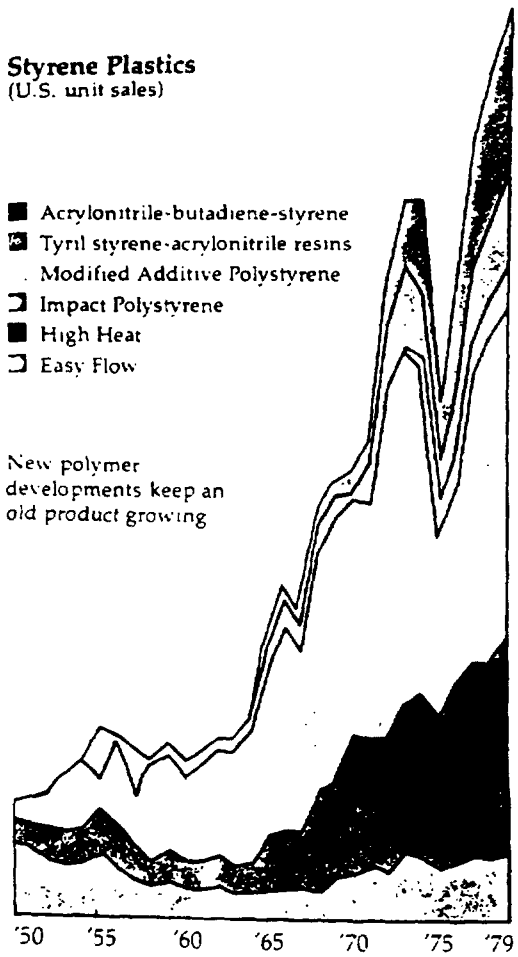
Even as capital spending rises outside the United States, the market value of Dow's exports from the U.S. continues to climb.



Three new members were elected to the board of directors: Hunter W. Henry, president of Dow Brazil; Paul W. McCracken, an economist and university professor, and Joseph G. Temple, Jr., president of Dow Latin America.

In February, a subsidiary of the company issued $200 million in Eurobonds to finance capital needs of Dow's operating subsidiaries outside the United States. Dow traditionally uses debt, rather than diluting its stock by issuing new shares, to finance its requirements for growth beyond that which can be covered by retained earnings.

Styrene Plastics
(U.S. unit sales)



New polymer developments keep an old product growing

In September, the board increased the quarterly dividend from 35 cents to 40 cents, raising the total dividend paid during the year to $1.45, an increase of 16 percent over the $1.25 paid in 1978. At the current rate, the payout will be $1.60 in 1980.

In December, MT Partnership, a 50-50 joint venture of Maligne Resources Ltd. (a wholly-owned subsidiary of Dow Canada) and TCPL Resources Ltd. (a wholly-owned subsidiary of TransCanada PipeLines Ltd.), was created. The net effect of this move provides Dow Canada with greater opportunities to expand the search for hydrocarbon and mineral deposits, increase its oil and gas holdings and continue its profitable relationship with Dome Petroleum.

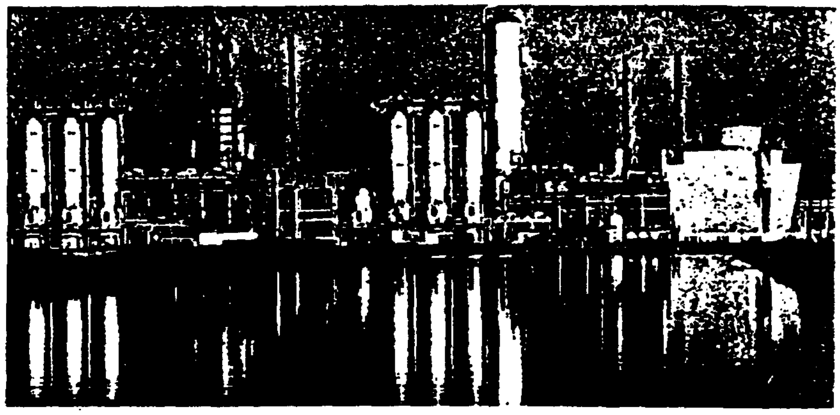
The number of employees grew by 2,400 to 55,900. Most of the gain was in the United States, principally at the Dowell, Louisiana, Oyster Creek and Texas Divisions.

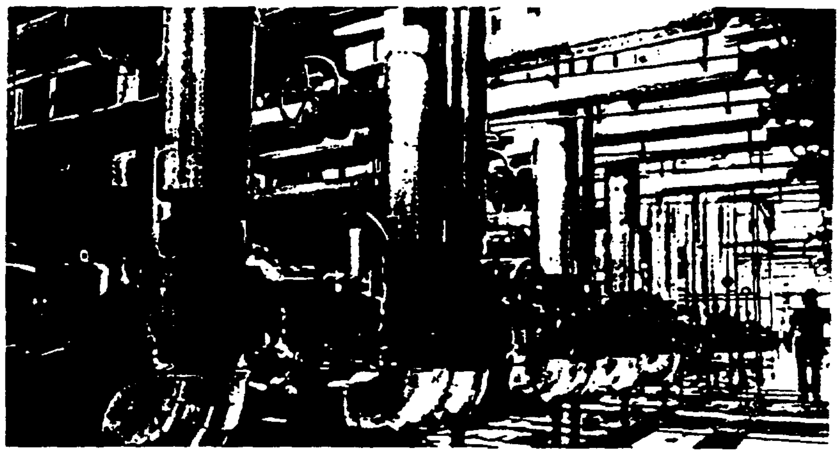
The worldwide safety performance of Dow's employees continued to improve, as measured by a seven percent reduction in "days away from work cases" compared with 1978. One of the safety highlights of the year took place on October 30 when the Latin American Area completed 10 million manhours without an injury, thereby earning the Dow President's Safety Award.

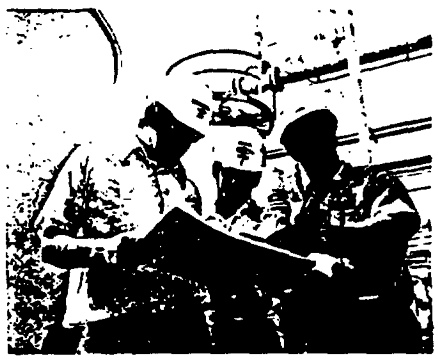
Significant increases were recorded in the sales of most Dow products. Exceptionally strong demand for industrial chemicals was evident in the Latin American and Pacific areas. Asian demand for chlorine derivatives was extraordinarily high and Dow reinforced its commitment to these markets with the start-up of new production capacity for ethylene dichloride and vinyl chloride monomer in Korea and Canada.

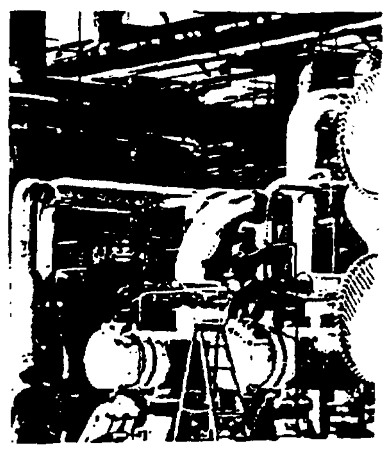
Chlorothene metal cleaning solvent sold especially well in Europe; its low toxicity continues to gain recognition as an important asset for safety in the workplace.

As demand for chlorine derivatives continues to grow in non-producing countries, the logistics and cost of marine transportation emerge as major challenges for the 1980s. Specialized cargo ships are already in short supply, and demand threatens to far outpace new shipping capacity.









Work nears completion on a world-scale crude oil processing plant at Freeport, Texas. When the plant begins operations in 1980, Dow will produce naphtha and kerosene to make chemicals, fuel oil to generate electricity and process steam, and sulfur.

Sales of magnesium rose substantially, as pricing stayed relatively competitive with aluminum. But prices did not keep pace with energy cost increases even with major improvements in manufacturing consumption of energy per unit. The emphasis on weight reduction of U.S. automobiles offers an exciting market potential for magnesium.

A significant new application for magnesium is in a new product, metallurgical granules, which are made from a Dow patented process and which have gained rapid acceptance for the desulfurization of steel.

Another new product, bromine chloride, is expected to find widespread acceptance as a more effective alternative to chlorine for waste and cooling water treatment.

Demand for plastic molding materials surged in spite of sharply escalating prices and costs. Although further major cost increases are expected in 1980, prices are not expected to advance as fast as in 1979.

Demand for *Styrofoam* brand polystyrene foam held level despite a slowdown in U.S. housing. Epoxy resins sold well worldwide until the market softened during the fourth quarter. Profit margins for both products were shaved by drastic benzene cost increases.

Rifampicin, an antibiotic, enjoyed increased acceptance as an integral part of the drug regimen for short course chemotherapy in the treatment of tuberculosis. The sale of probucol, an agent for reducing cholestorol levels, doubled in 1979, with the prospect of doubling again in 1980.

While sales of pharmaceuticals, agricultural products and consumer products were strong, a variety of factors held back earnings. A high proportion of Dow pharmaceutical sales are in Mediteranean and Latin American countries, where prices are rigidly controlled and where cost increases cannot be passed along promptly. In the United States, revenues grew for Bio-Science Enterprises, but the clinical laboratory industry has come under heavy price competition.

Significant additions to the capacity to produce *Tordon* herbicide and *Dursban* and *Lorsban* insecticides were readied for production in 1980. Sales of agricultural products grew 18 percent but profits were hurt by start-up costs and a shortage of manufacturing intermediates.

United States

Record sales and profits were achieved in the United States. Sales grew 25 percent, from \$3.65 billion to \$4.58 billion. Profit before tax rose one percent, from \$617 million to \$626 million.

The market value of Dow's exports from the United States rose dramatically, reaching approximately \$1.2 billion. U.S. chemical exports regularly produced a strong positive influence on the nation's balance of payments.

A slight decrease in export volume may occur in the first half of 1980, as major new Dow plants come on-stream in Korea and Canada. Nevertheless, as this new capacity is absorbed by growing worldwide markets, it is anticipated that exports will resume their growth trend in 1981 and beyond.

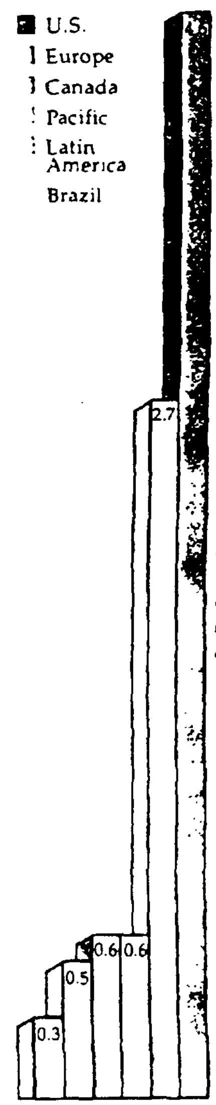
Significant developments occurred in several product lines. A different and valuable family of polyethylene resins under the trademark *Dowlex* was commercialized. *Dowlex* products are low and intermediate density polyethylene resins produced via a low pressure process. When used in plastic film production, *Dowlex* resins offer improved toughness, puncture resistance and tear strength. Billions of pounds of polyethylene plastic resins are widely used in industrial and consumer products ranging from wire and cable jackets and agricultural-construction-packaging films to piping, garbage bags and household products.

Rapidly growing demand is anticipated for *Dowlex* resins and future expansions are planned to increase present capacity from 150 million pounds a year to 850 million pounds in the United States and Europe by 1983.

Other plastic products also enjoyed a banner year. Demand was particularly robust during the first half with some declines noted in the second half.

A new *Ziploc* Heavy Duty Freezer Bag was introduced after four years of extensive consumer research and test marketing. The new

Area Sales
(Dollars in Billions)
1979



bag, offered in two sizes, is thicker, stronger and more tear resistant than any other freezer bag on the market.

After a slow beginning, oilfield activity gathered speed and ended 1979 at the highest level in 20 years, helping the Dowell Division attain its best sales year. Since 1973, Dowell sales have been growing at a rate in excess of 25 percent a year and its market share now exceeds 25 percent of the U.S. industry. Dowell and Dowell Schlumberger Corporation account for some ten percent of Dow's net income.

Brine chemicals had a banner year in 1979 led by record sales of magnesium hydroxide for refractory brick in steel furnaces. Outstanding demand continued for a new family of high density bromine compounds for use in oil and gas well drilling. This new family of compounds is expected to grow about 15 percent a year over the next five years.

Work neared completion on the 200,000 barrels a day crude oil processing plant at the Oyster Creek Division in Texas. Start-up of that facility is scheduled for Spring 1980.

Some of the petrochemical feedstocks from the crude oil plant, in the form of naphtha and kerosene, will be used by a new naphtha cracker also nearing completion at the Louisiana Division. A portion of the fuel oil production will fire boilers at the Texas and Louisiana Division power plants. The remaining products will be marketed by Dow as kerosene, jet fuel, gasoils, diesel fuel, #2 heating oil, low sulfur #6 fuel oil and sulfur. The feedstock going into the naphtha cracker will be used to produce ethylene, propylene and benzene, all of which will be consumed internally; butadiene, some of which will be sold, and resin oil, all of which will be sold.

The crude oil plant will ultimately have the capacity to produce about $1 billion in added sales for the company.

Construction continues on a new $200 million naphtha cracker at the company's Louisiana Division. The cracker will process naphtha produced by the crude oil processing plant in Texas.

Energy conservation remains an ongoing concern of Dow engineers and scientists. Since 1972, Dow U.S.A. has achieved a 21 percent reduction in the amount of energy used for each unit of production, somewhat ahead of the goal of 20 percent reduction by 1980.

Additional energy conservation projects are actively being pursued by the company. Extensive experimentation continues with coal gasification and liquefaction, extraction of oil from shale, the use of lignite for power generation and the adaptation of geopressured-geothermal energy.

Concern for the environment is a fundamental element in all Dow operations. Based on information gathered to date, Dow U.S.A. operations do not have any waste disposal sites that pose a significant threat to human health or the environment.

Europe

It was a volatile but favorable year in Europe, the world's largest chemicals market. Sales surged to a record $2.66 billion, up 47 percent from 1978's $1.81 billion. Profit before tax, also a record, was $334 million and represented an increase of 53 percent.

Because of the sharp rise in both costs and prices, most of the sales increase came as a result of price changes versus added volume. The improved prices enabled the restoration of healthier margins, especially in products which had previously been experiencing severe competitive pressure.

Buoyant demand for base chemicals and specialty products keep many of Dow's plants running at full speed throughout the year. At the same time, the industry faced intense cost pressures, with naphtha, the primary petrochemical raw material in Europe, escalating more than 100 percent on the open market. An intensive information program with customers enabled the company to restructure its pricing promptly. The program won wide acceptance among customers who agreed that price changes were necessary to maintain an orderly supply of products.

Exceptional sales gains were made by agricultural chemicals in the Middle East, particularly for such products as *Dursban*, *Lontrel* and *Plictran* insecticides.

.Plans were announced for construction of a world-scale phenol plant, for a 50 percent expansion of propylene oxide capacity at Stade and for production of the new *Dowlex* linear low density polyethylene. Work started on incremental expansions for production of ethylene amines, acrylonitrile-butadiene-styrene and ethylene oxide at Terneuzen. An expansion of chloromethanes capacity and a new *Dowex* ion exchange resins plant were underway at Stade. Plans were announced for a new plant for *Saranex* film at Drusenheim and new capacity for *Styrofoam* brand plastic foam in the United Arab Emirates.

Negotiations continue for a $1 billion petrochemical development in Saudi Arabia. Overall, business in the Mideast and Africa advanced strongly.

Pacific

In percentage terms, the growth of sales in the Pacific was the best of any Dow area. Sales were up 55 percent, to $627 million from $404 million. Profit before tax rose 78 percent, to $130 million from $73 million.

Near the end of the year, production started at a major facility at Yeo Su, Korea. The complex includes chlorine and caustic soda plants run by the 100 percent Dow-owned Dow Chemical Korea Ltd., and ethylene dichloride, vinyl chloride monomer and low density polyethylene plants of the 50 percent Dow-owned Korea Pacific Chemical Corp. Most of the chlorine is designated for the Korean market. Initially, there will be sizable exports of caustic soda. The combined plants represent a Dow investment approaching $200 million.

Ground was broken for the area's next production facility, a urethane chemicals unit at Kinu-Ura, Japan, which is slated for 1981 completion.

Japan strengthened its sales lead as the largest region in the area, but East Asia, Korea and South Asia all showed impressive gains. The principal sales growth was in plastics and chemicals.

During the year, the company established a commercial affairs office to handle our growing sales to the People's Republic of China.

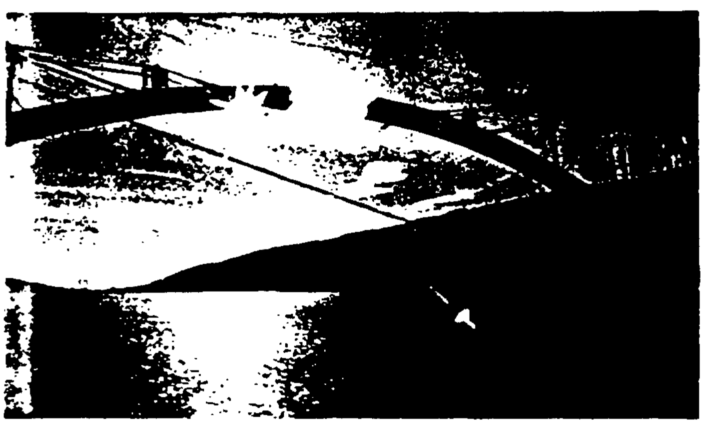
Terneuzen, The Netherlands, is Dow Europe's largest production site, and also the location of our European Area's naphtha cracking facilities.

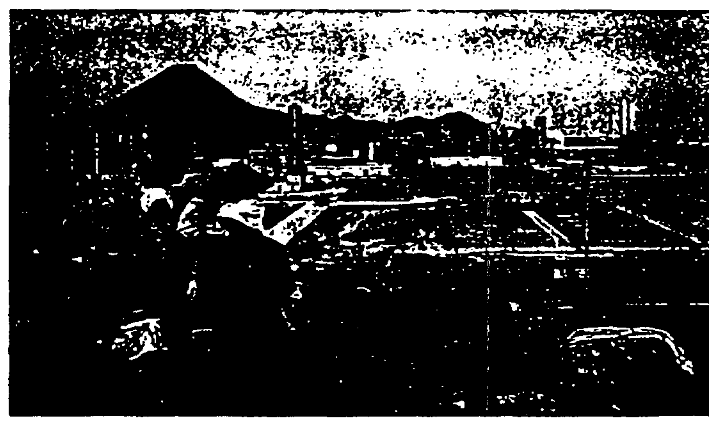
Left: Work progressed on DINA, Dow's petrochemical joint venture on the island of Krk in Yugoslavia. The infrastructure, including a 1½ kilometer span bridge to the mainland, is well advanced.

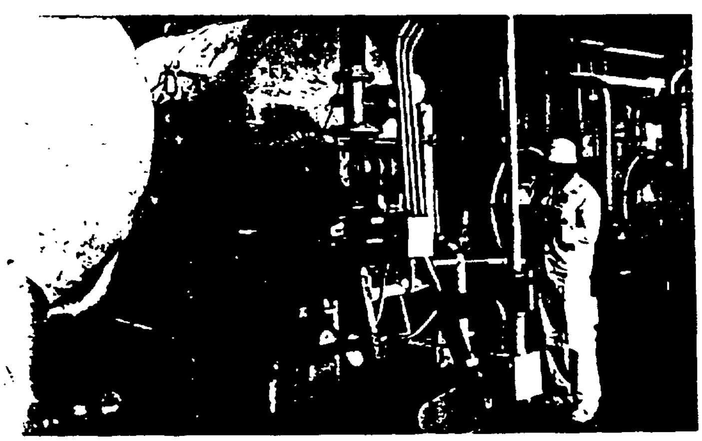
Right: Production began in the fall at a major new manufacturing complex in Yeo Su, Korea.

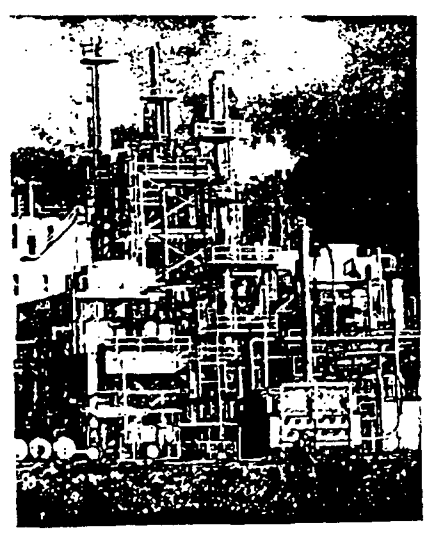
Left: At Laboratorios Lepetit in Brazil, a low-temperature, low-pressure process prepares injectable pharmaceuticals as dry powders.

Right: The Latin America Area's largest capital investment is in Chile, where this Petrodow plant produces low density polyethylene and polyvinyl chloride









Latin America

The improving economies of the major countries in Latin America helped the company attain $476 million in sales, up 41 percent from $337 million in 1978. Profit before tax more than doubled: $101 million versus $38 million.

With the exception of Central America, there was relative political stability but little overall improvement in controlling inflation. Nearly all signs indicate good economic growth for the area again in 1980. Our strong position in Mexico as a reliable supplier of industrial chemicals is particularly encouraging as Mexico's growing industrial and consumer demand provides a rapidly expanding market.

Sales of agricultural products rose five percent, pharmaceuticals 19 percent, chemicals 35 percent and plastics 74 percent. Major gains were made in the sale of vinyl chloride monomer, caustic soda, polyethylene and *Styron* polystyrene.

Brazil

Sales in physical volume for Dow Brazil rose approximately 16 percent during 1979. Although the inflation level reached 77 percent, sales in absolute dollar terms were held down as a result of a cruzeiro devaluation of about 103 percent; sales totalled $276 million, versus $249 million in 1978.

With the benefit of new facilities coming on-stream, Dow's overall operations were in the black in Brazil in 1979 for the first time since 1976. Profit before tax totalled $4 million, compared with a loss in 1978 of $6 million.

At Aratu, a 9,000 ton per year plant to produce 2,4-D herbicides began operations. In Guaruja, a new epoxy resin plant started up smoothly. A new research and development center, the first of its kind in Latin America, was completed and operations started at a site near Sao Paulo.

Sales of locally manufactured products constituted more than 80 percent of Dow sales in Brazil as a result of the first full year operation of the Aratu complex.

Canada

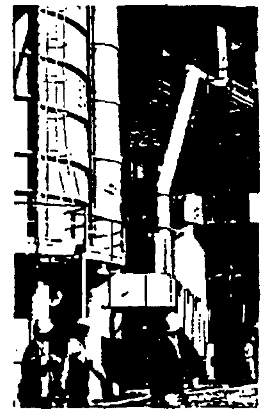
The demand for Dow products in Canada was strong throughout the year, raising sales to a record $630 million. This is up 44 percent from $439 million in 1978. Profit before tax grew from $28 million in 1978 to $135 million in 1979, an increase of 382 percent.

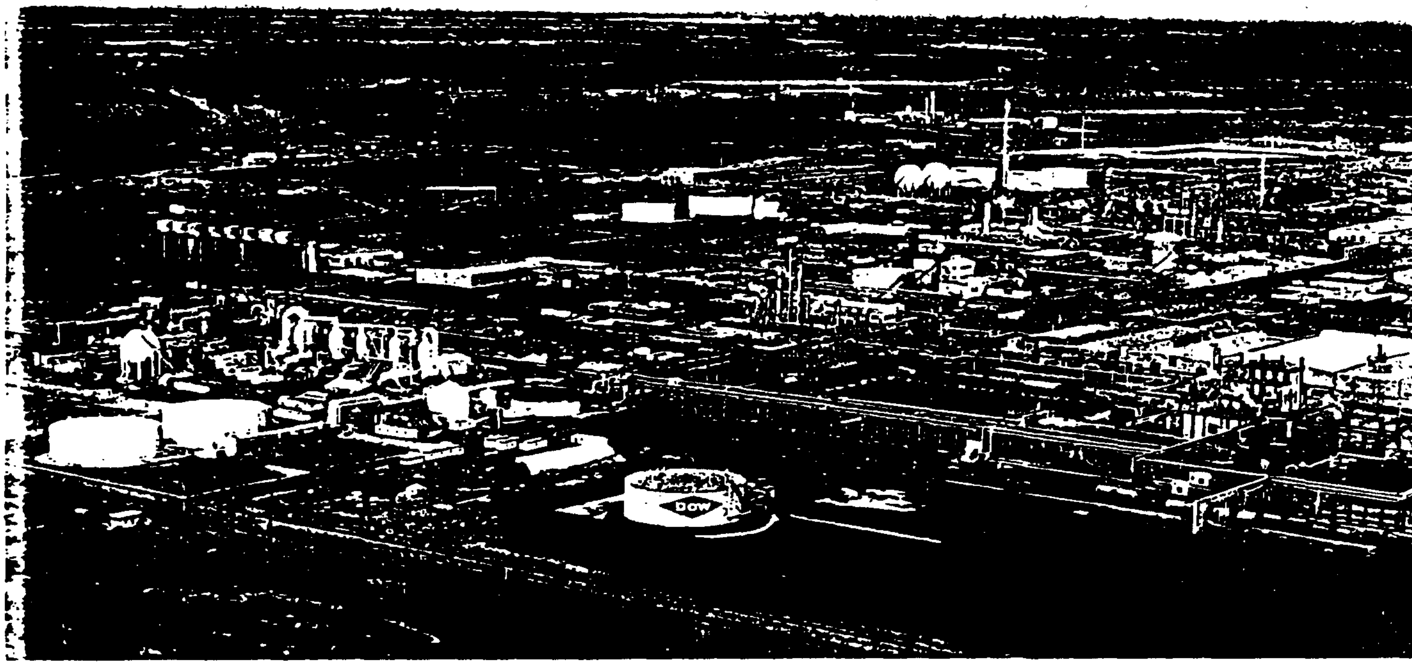
Favorable market conditions permitted Dow Canada to keep selling prices ahead of cost increases. In addition, the market value of exports was up 14 percent. Over the twelve months, Canadian plants produced at an average of 89 percent of capacity. During the month of September, the entire Sarnia Division complex ran at 100 percent of capacity.

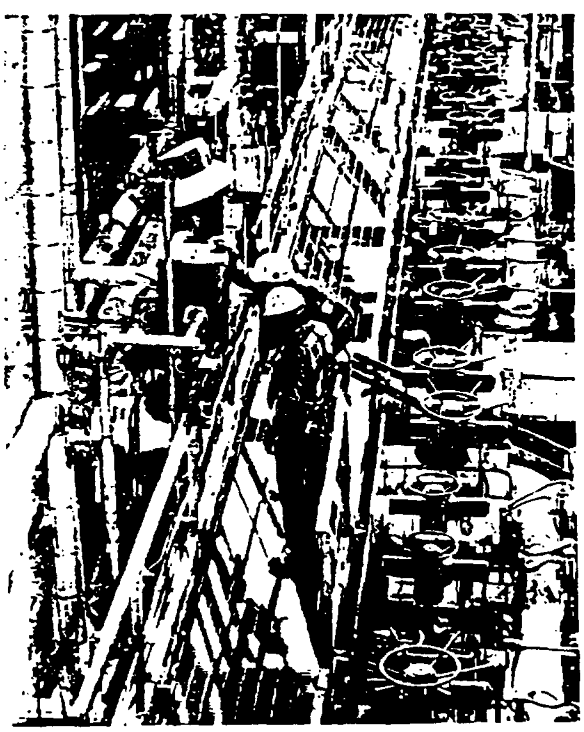
New global-scale plants at Fort Saskatchewan were brought on-stream during the last half of the year, together with back-up power, ethylene storage and site facilities. They produce chlorine, caustic soda, ethylene dichloride and vinyl chloride. Plants making ethylene oxide and ethylene glycol, also part of Dow Canada's $600 million Alberta Petrochemical Project, are scheduled for start-up in 1980. To provide the necessary raw material, Dow Canada designed, built and started up a 1.2 billion pound per year ethylene-from-ethane cracker for Alberta Gas Ethylene Company Ltd. Dow Canada has contracted to take all of this ethylene.

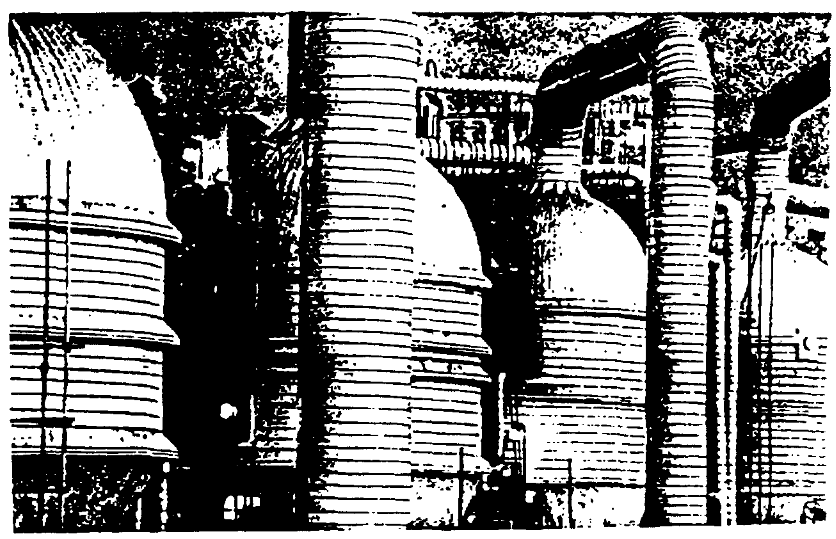
Dow's expanding manufacturing base in Alberta is proving to be globally competitive in ethylene derivatives. Canada's growing long-term surplus position in natural gas assures Dow of ample ethane/ethylene feedstock there for many decades.

The 1,900-mile Cochin Pipeline, completed in 1978, brought its first batch of Alberta ethylene to Sarnia in the fourth quarter of 1979. Dow Canada owns 32½ percent of this utility operated by Dome Petroleum of Calgary. ■









In the province of Alberta, a massive new $600 million complex includes Dow plants to produce chlorine, caustic soda, ethylene dichloride, vinyl chloride, ethylene oxide and ethylene glycol.

Staking Out the Future—

Winners of New Research Medal Typify Tradition That Creates Stream of New Products and Processes

The knowledge explosion that has been reshaping the late 20th century world is only about 35 years old. It began at the end of World War II, born out of the incredibly productive results of systematic research and development by large-scale organizations.

Dow's research and development organization, which blossomed in the World War II era and has not stopped growing since, is a stellar example of the organizations that have spawned and are spawning the high technology on which U.S. affluence is based. The company has continued to extend the use and benefits of that technology to other parts of the world.

Employing more than 6,100 persons worldwide, the Dow R&D organization made an investment in the future of $232 million in 1978 and $269 million in 1979. Some chemical companies have retrenched and pared their R&D budgets in recent years, but Dow has maintained its bullish outlook. Its R&D budget has continued a rapid and consistent climb.

The fruits of this research are the generation of new products, the discovery of new uses for existing product families, and significant improvements in manufacturing technology— key factors in Paul Oreffice's predictions that the '80's will be "a golden era" for the company.

The company comes by its research traditions honestly. Herbert H. Dow, its founder, was a prolific inventor who obtained 64 patents himself during his lifetime, and the company was built on those patents and those of his early associates. A 1968 study showed the company he established was first among large U.S. industrial firms both in number of patents per dollar of sales (327.9 patents per $100 million in net sales) and patents per number of employees (114.1 patents per 10,000 employees). When the study was repeated in 1973 Dow was again first in patents per sales dollar (150.2 patents per $100 million in sales) and a close second in patents per employee (92.6 patents per 10,000 employees).

Number of patents can be a misleading number, of course. Lawrence L. (Zip) Ryden was granted only five patents during his career at Dow but is remembered as the inventor of latex paint. O. R. McIntire has also had only a handful of patents during his Dow career, but among them were basic patents for *Styrofoam* brand plastic foam and high impact polystyrene.

The Dow Medalists

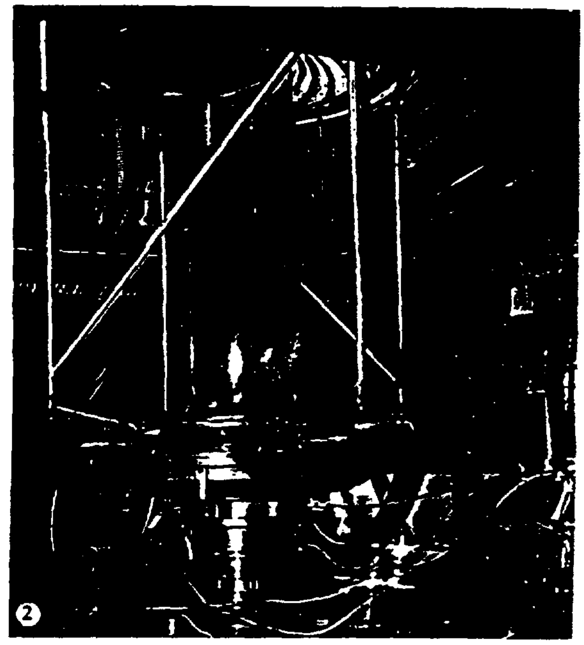
In 1979 Dow honored six of its top research scientists for their achievements. The six were awarded the newly-struck Herbert H. Dow Medal as "rare individuals whose inventiveness and pioneering in technology have had outstanding impact on the growth and well-being of The Dow Chemical Company".

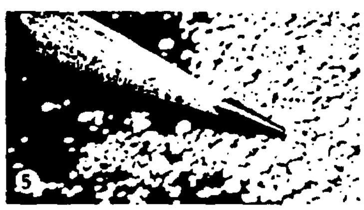
The six:

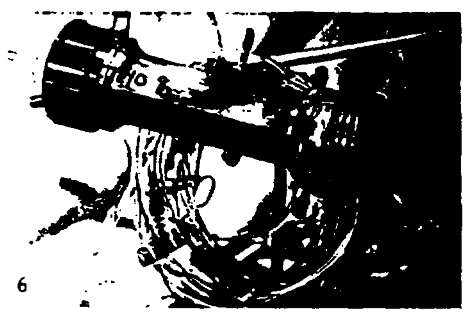
- Carl B. Havens, expert in film manufacturing technology, the developer of *Handi-Wrap* plastic film and other film products.
- Robert G. Heitz, developer of the first commercial thermal process for the manufacture of perchloroethylene, as well as the hollow fiber technology that led to desalinated water units and artificial kidney machines.
- Howard Johnston, expert in chloropyridine chemistry, who developed a family of agricultural chemicals including *N-Serve* nitrogen stabilizer, and *Tordon*, *Lontrel*, and *Garlon* herbicides.
- William C. Bauman, world authority on ion exchange, whose inventions led to the development of *Dowex* ion exchange resins and other major Dow products.
- Raymond H. Rigterink, expert in the synthesis of heterocyclic molecules, whose work paved the way to such products as *Coyden* coccidiostat and *Dursban*, *Lorsban*, and *Reldan* insecticides.
- Louis C. Rubens, expert on polymer foams, who developed the technology for *Pelaspan* and *Pelaspan Pac* expanded polystyrene, *Ethafoam* expanded polyethylene, and composite foam systems.

The work of these men has resulted in major product families that contribute significantly to Dow's sales. More than $300 million of Dow's current sales, for example, are calculated to result from inventions by Bauman.

Winners of the new Herbert H. Dow Medal are (from the top) Carl B. Havens, Robert G. Heitz, Howard Johnston, William C. Bauman, Raymond H. Rigterink and Louis C. Rubens.







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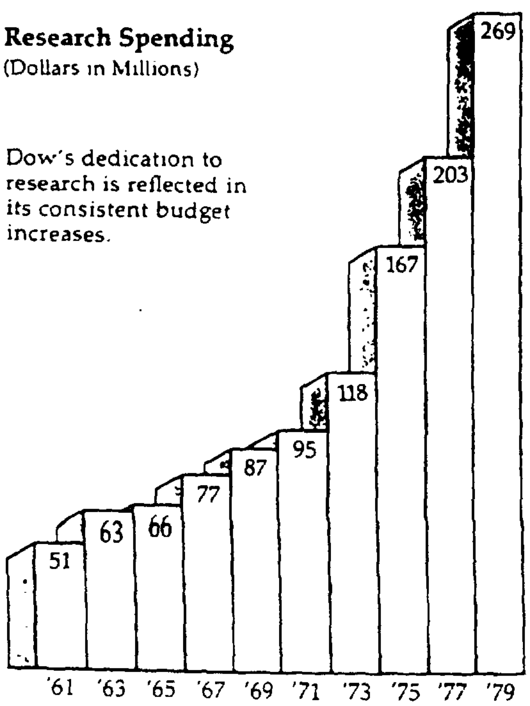
Originating in the creative chemistry of such research giants as the 1979 Dow Medalists, a broad range of Dow products provide growing sales volume for Dow and many benefits for the consuming public. They include (1) Lorsban insecticide, (2) Dowlex polyethylene resins, (3) Handi-Wrap plastic food wrap, (4) Dowex ion exchange resins, (5) metallurgical granules, (6) artificial kidneys, (7) Pelaspan-Pac loose fill packing and (8) high modulus reaction injection molding materials (Dowlex photo courtesy Alpine American Corp.)

In their restless drive to stake out the future, Dow's research and development personnel follow a strategy that embraces five main points:

- Improvement research — improving and expanding the present Dow product line to maintain the company's competitive position, through product and process improvements.
- Resource research — developing processes to use crude oil, coal, lignite, and other materials as energy and raw material sources.
- New product research — developing and commercializing new product families.
- Longer-range exploratory research —aimed at finding new areas for Dow and fundamental changes in raw materials and manufacturing processes.
- Health and environmental research —maintaining Dow leadership in health and environmental research and product safety.

Research Spending
(Dollars in Millions)

Dow's dedication to research is reflected in its consistent budget increases.



Improving the Product Line

The eternal campaign to keep Dow products competitive, to keep upgrading them, to find new uses and better technology, is the bread-and-butter work of the research establishment. Continual improvement of manufacturing operations, for instance, is a major research concern:

- Production of symmetrical tetrachloropyridine, the raw material for *Dursban* insecticide, was increased by more than 50 percent in the Texas Division by redesigning the equipment. The increased production provided \$45 million in increased sales.
- Improved yield of two to three percent in ethylene oxide production at the Louisiana Division resulted from a newly developed catalyst treatment. The improvement means a net gain of about \$2 million yearly.

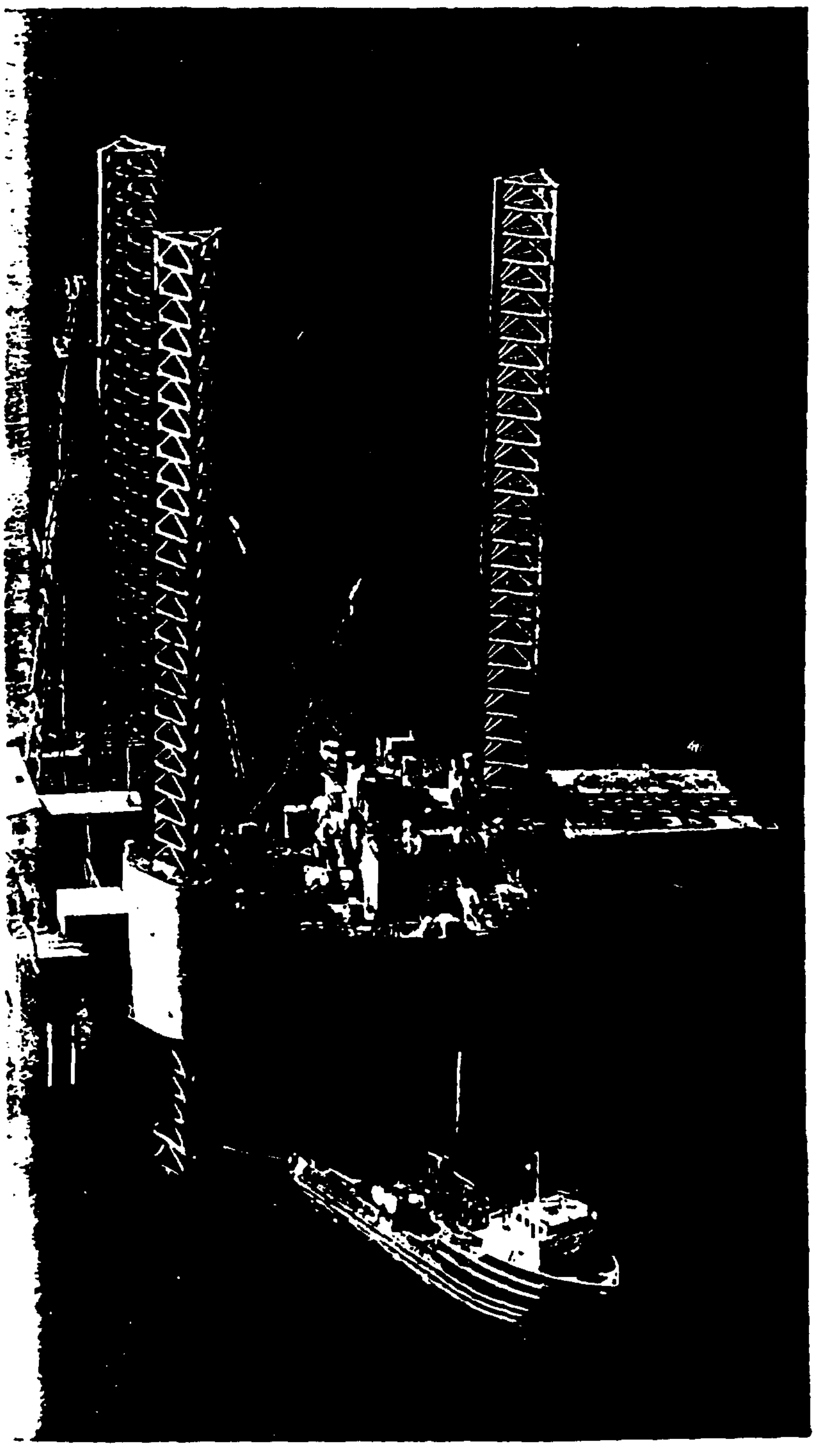
Such efforts, and similar efforts at all manufacturing locations, saved the company an estimated \$135 million last year in yield improvements, energy use, and increased production of products in short supply.

Products new to Dow but old to the industry also offer significant profit opportunities on occasion, depending upon market position, technology, and raw materials. One such example is polycarbonates, a series of very high performance resins based on bisphenol and phosgene, which Dow now has in market development. Another is *Bexton* herbicide, the first liquid propachlor herbicide, first introduced in two states in 1977.

Raw Material and Energy Base

Dow is basic in the production of key petrochemical building blocks and in the energy needed to operate its electro-chemical processes. Its pioneering operations on the Gulf Coast were originally established in Texas to take advantage of low-cost chemical feedstocks and energy based on bountiful, low-cost natural gas.

In the early 1970's, observing the decline in natural gas reserves and their rising cost, Dow began work to develop technology that would allow the company to move from natural gas to crude oil, lignite, and coal as its primary



sources of petrochemical feedstocks and energy. This work has led to:

- A mammoth processing plant, which will process crude to naphtha for ethylene and benzene feedstocks and provide desulfurized fuel oil for Dow's Texas chemical production energy demands.
- A direct crude cracking process for the production of olefins directly from crude oil; the process has been pilot planted and is being scaled up to a major prototype plant.
- A patented coal liquefaction process which has been demonstrated (in the laboratory, at a 200 lb./day rate) to be superior to the current processes under development by the Department of Energy. Dow has asked to lease the DOE's 10-ton-per-day pilot plant in Bruceton, Pennsylvania, to continue development of this process.
- Improved Fischer-Tropsch synthesis technology to produce petrochemical feedstocks from carbon monoxide and hydrogen.

Since the days of its founder Dow has been a pioneer in the production of electric power and the co-generation of steam for process needs. The cyclone boiler and the integration of gas turbines with chemical processes are examples of past Dow accomplishments. The pioneering continues; at the beginning of 1980 Dow had in the start-up phase at its Louisiana Division a prototype entrained flow gasifier to produce low BTU gas for turbine fuel. The gasifier and turbine will be an integrated facility.

The prototype gasifier unit is a major undertaking. It promises new technology based on the use of either lignite or bituminous coal to produce electric power with a high thermal efficiency and lower capital costs per kilowatt hour.

Dow-developed products such as Heviwater completion fluids, used by the Dowell Division in oil well servicing, provide a growing market for bromine products. Dow's profits from bromine continue to grow at a healthy rate in spite of the loss of tetraethyl lead, once their main use, because of the development of products such as calcium bromide packer fluid and finisher fluid for oil wells

The company began acquiring lignite rights in Texas and Louisiana in 1974; it now has about one billion tons of lignite reserves in the Freestone, Texas, area, and about a half-billion tons of reserves in the Logansport, Louisiana, area. Plans are to shift the Louisiana and Texas plants from natural gas to solid fuels in an orderly, long-term program.

New Product Research

New products (new in the last 10 years) continue to produce about 12 percent of Dow's annual sales. Dow had 34 new products in 1978 — products new to Dow that reached at least $500,000 in sales during the year — and 38 in 1979. These new products and new applications of old products totaled $88 million in sales in 1978, compared to $77 million in 1979.

Some of the more significant new products:

- *Dowlex* resins, a new family of linear low-density polyethylene resins for which Dow is building production capacity of 700 million pounds annually for a total of 850 million pounds a year.
- High modulus reaction injection molding materials, a new family of polyurethane polymers designed for large volume molding of exterior automobile parts.
- *Lorsban* insecticide, which is being registered for many uses in many countries worldwide.
- *Garlon* herbicide, a new product for vegetation control, and *Lontrel* herbicide, which has excellent biodegradability.
- *Lorelco* anti-cholesterol drug.
- *Rifaprim* anti-infective, a pharmaceutical especially effective against certain types of urinary tract infections, undergoing clinical trials
- Low-level radioactive waste solidification, a new Dow service in a rapidly growing market.

Most of these products have market potentials in the multimillion dollar brackets.

Sources of the Sales Stream

The new Dow Medalists — they were the first named to the honor; others will be nominated in years to come — are hardly examples of the highly visible scientist whose opinion (often on political matters) is front-page news. But their quiet, often brilliant, work in the laboratory still makes them world-shakers in their own way.

The inventions they produce tap small springs that gradually become a roaring stream of sales dollars, to say nothing of the benefits to society of their discoveries, which is another story.

A new sodium-sulfur battery derives in large part from research by Heitz. New varieties of *Ethafoam* expanded polyethylene brought on the market a year ago derive from work by Rubens.

A "bag-in-box" concept for packaging wines and other liquids, now beginning to appear in local supermarkets, uses *Saranex* plastic film, a Dow sandwich film largely developed by Havens.

In the cases of Johnston and Rigterink, the new agricultural chemicals listed above clearly bear the imprint of their authorship.

The six scientists newly honored have contributed enormously to the success of the company they serve. The results of their work will continue to be seen as more new products based on their research emerge at the end of the road from the laboratory to the commercial market.

But these are only six of the more than 6,100 people who work in Dow's R&D organization. "Most of our people are younger, and they're junior to these men," says Malcolm E. Pruitt, corporate vice president for research, "but a lot of them will be that good, some day."■

Financial Review

Management Discussion and Analysis of the Consolidated Statement of Income

G. James Williams, Financial Vice President

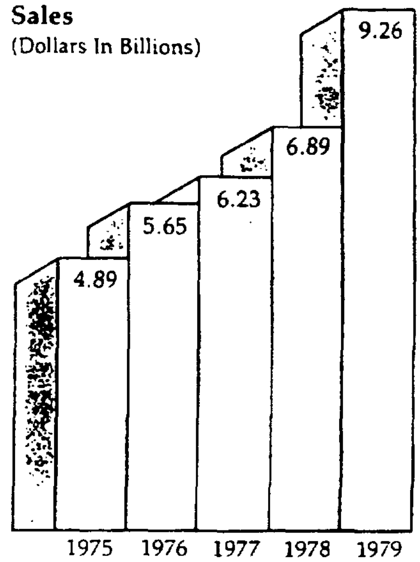
Net income in 1979 scored one of its greatest gains in the company's history — up 36 percent. This, despite skyrocketing costs, political uncertainties in many parts of the world and wildly fluctuating currencies. Nevertheless, the return on sales, 8.5 percent, still fell short of the level required to finance necessary and increasingly costly capital investments for the future.

Sales rose 34 percent. The increase alone, $2.37 billion, is more than all of the company's sales in 1971. Volume increases accounted for 10 percent. Sales rose substantially in all of our areas; the greatest percentage gains were made in Europe and the Pacific. Among our product lines, petrochemicals, especially plastic resins, showed the greatest growth.

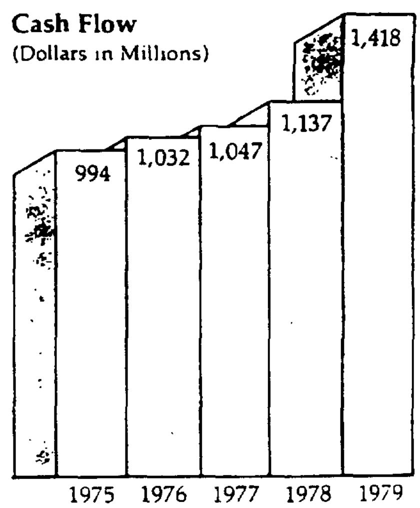
Sales increases for industry segments and geographic areas were:

	Percent increase from prior year 1979	1978
Industry segments		
Chemicals/Metals	35	6
Plastics/Packaging	39	15
Bioproduct/Consumer Products	16	16
Geographic areas		
United States	26	5
Europe/Africa	47	12
Canada	44	11
Pacific	55	37
Latin America	41	21
Brazil	11	31

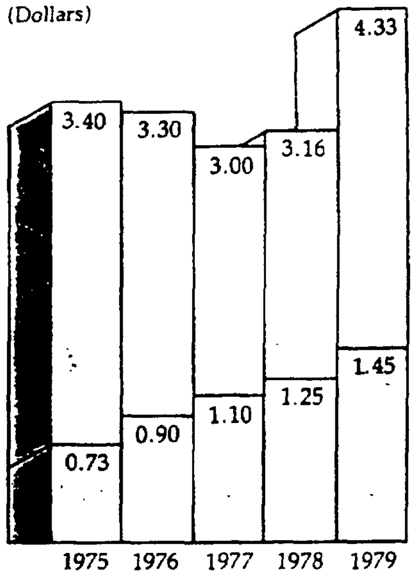
Sales
(Dollars In Billions)



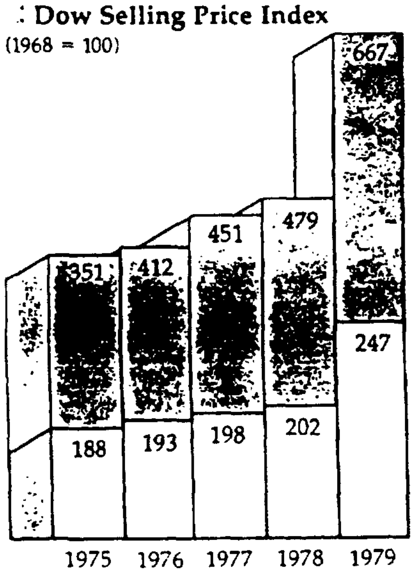
Cash Flow
(Dollars in Millions)



Earnings Per Share
Dividends Paid Per Share
(Dollars)



Energy And Hydrocarbons Purchase Price Index
Dow Selling Price Index
(1968 = 100)



Dow's share of sales of companies in which we own 20 to 50 percent increased 24 percent and totaled approximately $1.1 billion.

Principal 50 percent owned companies	Percent increase from prior year 1979	1978
Dow Corning	27	17
Dowell-Schlumberger	25	37
Asahi-Dow	24	20
Cordis-Dow	23	12
Korea Pacific	29	16

Prices and Costs. Huge increases in oil-related costs required the chemical industry to raise its prices sharply. Dow's selling prices and costs (in U.S. dollars) changed as follows:

	Percent increase from prior year 1979	1978
Prices		
United States	12.9	1.0
Non-U.S.	32.7	2.8
Global	22.1	1.8

	Percent increase from prior year 1979	1978
Costs		
Feedstocks and energy, per unit	39	6
Labor and benefits, per employee	13	14
Research and development	16	14
Depreciation	13	14
Maintenance and repair	28	8

Earnings rose primarily because of significant improvements in our non-U.S. business, due directly to the global manufacturing and marketing position that Dow has developed over the years. Net income increased more than operating income due primarily to the sale of some oil and gas properties. Earnings per share benefitted from a smaller number of shares outstanding.

	Percent increase from prior year 1979	1978
Net income	36	4
Earnings per share	37	5
Operating income	27	3

Operating income by industry segments and geographic areas reflected the following changes:

	Percent increase (decrease) from prior year 1979	1978
Industry segments		
Chemicals/Metals	6	(10)
Plastics/Packaging	67	11
Bioproducts/Consumer Products	(33)	114

	Percent increase (decrease) from prior year 1979	1978
Geographic areas		
United States	—	3
Europe/Africa	65	6
Canada	50	(30)
Pacific	113	46
Latin America	149	(19)
Brazil	(12)	338

Capital spending and completions remained the highest in the chemical industry. Capital spending reached $1.27 billion — 16 percent of last year's gross plant properties. Spending in the last five years exceeds today's net plant investment.

Completions totaled $1.19 billion, up $131 million from 1978.

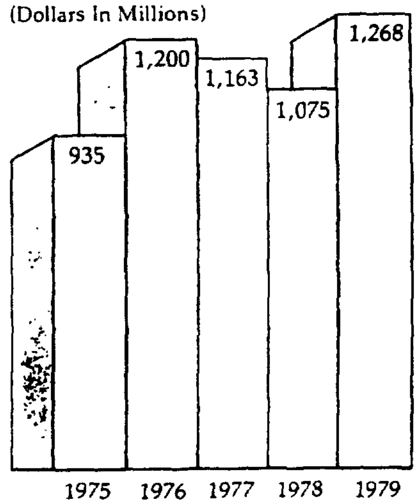
Financing. Debt increased during 1979 by $258 million, versus $342 million in 1978. Net interest expense was up 15 percent compared to eight percent in 1978 primarily because of more borrowing. Borrowing included $200 million in 15-year Eurobonds at a very favorable rate of 9.625 percent to finance capital needs outside the United States.

Wages and taxes. Dow employees received $1.30 billion in wages and salaries, and $297 million in benefits, an increase of 16 percent.

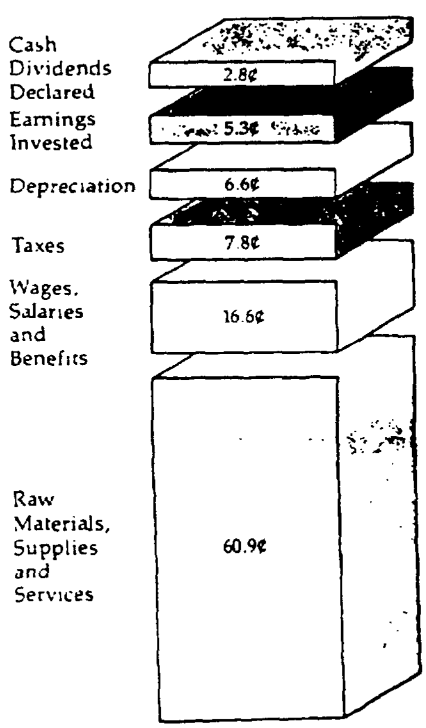
Major taxes on income and property and other assessments were $748 million, versus $572 million in 1978.

Capital Spending

(Dollars In Millions)



Distribution of the 1979 Income Dollar



Employee stock ownership. Dow distributed 201,000 shares to U.S. employees as part of the Dow Investment Benefit Plan. In addition, employees subscribed to purchase 1.4 million shares in 1979-80 stock purchase plan.

Members of the board of directors own more than 3.4 million shares.

Dividends were raised by the board of directors in September from 35 cents quarterly a share to 40 cents. Payments for the year were $1.45, an increase of 20 cents.

Investment income rose to $91 million primarily as the result of the sale of certain oil and gas properties in Canada. The translation of foreign currencies resulted in a loss of $6 million, versus a gain in 1978 of $10 million — an outstanding performance again in view of the wild fluctuations in currency exchange rates.

Subsidiaries and affiliates. Our equity in income from companies in which Dow owns 20-50 percent went up 35 percent, due partly to sharply higher profits at Asahi-Dow Ltd. Dow's equity in income from non-consolidated subsidiaries declined to $20 million from $37 million in 1978, when the Dow Banking Corporation showed greatly increased profits and currency translation gains.

The outlook for 1980 is reasonably good. Some slowdown in the U.S. economy had started by year-end, but is not expected to be severe or long-lasting, or to spread to all world economies. Our sales capacity will rise substantially and we expect operating rates to remain good.

Costs will continue to rise, but so will prices. There will be heavy start-up costs and higher interest expense. Earnings will benefit from a new accounting rule which provides for the capitalization of interest expense.

1978 versus 1977. Sales in 1978 were up 10 percent over 1977. Of the $653 million increase, volume accounted for $545 million. Prices increased a modest 1.8 percent. Sales were most noteworthy in the Pacific and Latin America areas and among agricultural chemicals. Dow's share of sales of 20-50 percent owned companies increased 23 percent.

Costs in 1978 far outpaced sales price gains. The cost of sales went from 75.9 percent of sales in 1977 to 76.7 percent in 1978.

Earnings showed a small increase despite higher depreciation, interest and operating costs.

Debt increased $342 million, versus $549 million in 1977. Net interest expense was up 8 percent. Borrowing included $300 million in 30 year debentures at 8.625 percent.

Investment and financial income declined to $10 million, versus $27 million in 1977 when the company disposed of interests in oil shale properties.

Subsidiaries and affiliates: Dow's equity in income from non-consolidated subsidiaries rose 32 percent. Equity in income from 20-50 percent owned companies rose 21 percent to $77 million. ■

Management's Statement of Responsibility for Financial Statements

The following consolidated financial statements and related notes of The Dow Chemical Company and its subsidiary companies were prepared by the management in accordance with generally accepted accounting principles. The Board of Directors, through the three-member Audit Committee, is responsible for assuring that management fulfills its responsibilities in the preparation of the financial statements.

The Company is responsible for the integrity and objectivity of the consolidated financial statements, which are presented in a consistent manner on the accrual basis of accounting. Established accounting procedures are designed to provide accurate books, records and accounts which fairly reflect the transactions of the Company.

The training of qualified personnel and the assignment of duties are intended to provide internal controls at a cost appropriate to our evaluation of the risks involved. Such controls are monitored by an internal audit staff, providing reasonable assurances that transactions are executed in accordance with management's authorization and that adequate accountability for the Company's assets is maintained.

Deloitte Haskins & Sells, independent public accountants, with direct access to the Board of Directors through its Audit Committee, have examined the consolidated financial statements prepared by the Company, and their report follows.

Opinion of Independent Public Accountants

TO THE STOCKHOLDERS AND DIRECTORS OF
THE DOW CHEMICAL COMPANY

We have examined the consolidated balance sheets of The Dow Chemical Company and its subsidiary companies as of December 31, 1979 and 1978, and the related consolidated statements of income, retained earnings, capital surplus, and changes in financial position for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, such financial statements present fairly the financial position of The Dow Chemical Company and its subsidiary companies at December 31, 1979 and 1978, and the results of their operations and the changes in their financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Deloitte Haskins & Sells

Detroit, Michigan
February 15, 1980

Accounting Principles

CONSOLIDATION The accompanying consolidated financial statements include the assets, liabilities, revenues and expenses of all significant subsidiaries except for banks and insurance companies. Because of the nature of their operations, the accounts of these companies are not consolidated. However, their earnings are included in consolidated net income under the equity method of accounting.

NON-CONSOLIDATED EQUITY INVESTMENTS Investments in companies which are 20%-50% owned are carried on the equity basis. Marketable equity securities are carried at the lower of cost or market. Other investments are carried at cost less reserves.

TRANSLATION OF FOREIGN CURRENCIES Cash, marketable securities, receivables and liabilities are translated at current rates. Property, inventories and investments in capital stock are translated at rates prevailing when the transactions occurred. Deferred income taxes are translated in the same manner as the assets or liabilities to which they relate.

Revenues and expenses are translated at appropriate current rates for each month, except that depreciation is recorded at historical rates. Foreign currency gains and losses are reflected in income currently.

INVENTORIES Inventories are stated at cost, which is less than market value. Cost is determined on the last-in, first-out basis, except for operating supplies, which are carried on the first-in, first-out basis.

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 provided using the declining balance method.

Expenditures for renewals and betterments are capitalized, and maintenance and repairs are charged to income as incurred.

Fully depreciated assets are retained in the property and depreciation accounts until they are removed from service. In the case of disposals, the assets and related depreciation are removed from the accounts and the net amount, less proceeds from disposal, is charged or credited to income.

EXPLORATION AND DEVELOPMENT COSTS The successful efforts method is used in accounting for costs incurred in the acquisition, exploration, development and production of oil and gas reserves. Capitalized costs are amortized using the unit-of-production method on the basis of total estimated units of proved reserves and non-productive efforts are charged to expense.

GOODWILL The excess of the cost of investments in subsidiaries over carrying value of assets acquired is shown as goodwill. Goodwill arising since October 1970 is amortized over 40 years. In the opinion of management, goodwill prior to that date requires no amortization.

RETIREMENT PLANS The Company and certain subsidiaries have plans which provide retirement benefits for eligible employees. The major plan covers substantially all full-time United States employees. The policy is to accrue and fund pension cost as computed by an actuary.

TAXES ON INCOME AND INVESTMENT CREDITS The companies compute and record income taxes currently payable based upon their determination of taxable income which may be different from pretax accounting income. These differences may arise from recording in pretax accounting income transactions which enter into the determination of taxable income in another period. The tax effect of these timing differences is recognized by adjustment currently to the provision for taxes.

Provision is made for taxes on that income of subsidiaries which is taxable in the United States as earned, and on unremitted earnings of subsidiary and 50% owned companies to the extent that such earnings are deemed to be not permanently invested. Income taxes are provided on the undistributed income of 20%-49% owned companies at the time the Company records its equity in such earnings.

A portion of the taxes due on foreign operations conducted through a domestic international sales corporation (DISC) is deferrable under U.S. tax rules. However, it is the practice of the Company to fully accrue such taxes currently.

Laws governing the determination of United States and certain foreign income taxes provide for investment credits for acquisition of qualified facilities. Such credits are reflected as a reduction of income tax expense on the flow-through basis in the year in which they are earned.

In addition to tax credits, certain foreign countries provide incentives which are granted to encourage new investment. Generally, such grants are credited to income as earned.

Consolidated Statement of Income

	Year Ended December 31 1979	1978
	(In thousands)	
Net Sales	$9,255,387	$6,887,623
Operating Costs and Expenses		
Cost of sales	7,231,630	5,284,001
Selling and administrative	690,166	552,219
	7,921,796	5,836,220
Operating income	1,333,591	1,051,403
Other Income (Expense)		
Equity in earnings:		
Non-consolidated subsidiaries	20,174	37,296
20%-50% owned companies	103,253	76,597
Interest income	86,340	49,813
Interest and debt discount and expense	(358,534)	(287,059)
Gain on sale of oil and gas properties	84,846	
Sundry income — net	42,889	40,011
Income Before Provision for Taxes on Income	1,312,559	968,061
Provision for Taxes on Income	515,000	383,900
Income Before Minority Interest	797,559	584,161
Minority Interests' Share in Income	13,661	8,937
Net Income	$ 783,898	$ 575,224
Earnings per Share	$4.33	$3.16

See Accounting Principles and Notes to Financial Statements

Consolidated Balance Sheet

ASSETS	December 31 1979	1978
	(In thousands)	
Current Assets		
Cash	$ 42,307	$ 57,622
Marketable securities and interest-bearing deposits (at cost, approximately market)	209,400	340,905
Accounts and notes receivable:		
Trade, (less allowance for doubtful receivables — 1979, $53,113; 1978, $44,392)	1,572,905	1,290,851
Miscellaneous	480,246	357,099
Deferred income tax benefits	135,345	70,245
Inventories:		
Finished and in process	856,812	629,255
Materials and supplies	456,293	370,293
	3,753,308	3,116,270
Investments		
Capital stock — at cost plus equity in accumulated earnings:		
Banking and insurance subsidiaries	185,931	154,203
Associated companies (50% owned)	598,743	333,966
20%-49% owned companies	71,788	80,828
Other — at cost (less reserves — 1979, $856; 1978, $1,260)	69,732	59,083
Noncurrent receivables (less reserves — 1979, $268; 1978, $726)	96,135	96,465
	1,022,329	724,545
Plant Properties	8,909,244	8,037,638
Less — Accumulated depreciation	3,672,840	3,275,509
	5,236,404	4,762,129
Goodwill	106,892	84,039
Deferred Charges and Other Assets	132,704	102,137
TOTAL	$10,251,637	$8,789,120

See Accounting Principles and Notes to Financial Statements

LIABILITIES	December 31 1979	1978
	(In thousands)	
Current Liabilities		
Notes payable	$ 528,321	$ 386,024
Long-term debt due within one year	72,728	74,451
Accounts payable	1,173,893	836,613
United States and foreign taxes on income	266,659	163,305
Accrued and other current liabilities	573,501	490,586
	2,615,102	1,950,979
Long-Term Debt	3,054,979	2,937,264
Other Liabilities		
Minority interests in subsidiary companies	39,514	49,165
Deferred employee benefits	63,528	45,339
Deferred income taxes	581,876	411,679
	684,918	506,183
Stockholders' Equity		
Common stock	501,387	497,705
Capital surplus	479,878	447,036
Retained earnings	3,364,873	2,859,554
	4,346,138	3,804,295
Less—Treasury stock at cost	449,500	409,601
	3,896,638	3,394,694
TOTAL	$10,251,637	$8,789,120

See Accounting Principles and Notes to Financial Statements

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Consolidated Statement of Capital Surplus

	Year Ended December 31	
	1979	1978
	(In thousands)	
Balance at Beginning of the Year	$447,036	$435,677
Add:		
Excess of selling or market price over par value of common stock issued to employees	30,158	11,072
Income tax benefit realized from sale of common stock to employees	2,612	277
Excess of face value of debentures over par value of common stock issued on conversion	72	10
Balance at End of the Year	$479,878	$447,036

Consolidated Statement of Retained Earnings

	Year Ended December 31	
	1979	1978
	(In thousands)	
Balance at Beginning of the Year	$2,859,554	$2,520,949
Add (Deduct):		
Net income	783,898	575,224
Adjustments related to subsidiary companies	(6,781)	(139)
Cash dividends declared	(271,798)	(236,480)
Balance at End of the Year	$3,364,873	$2,859,554

See Accounting Principles and Notes to Financial Statements

Consolidated Statement of Changes in Financial Position

	Year Ended December 31 1979	1978
	(In thousands)	
Source of Working Capital		
Net income	$ 783,898	$ 575,224
Charges (credits) to income not involving working capital:		
Depreciation	634,445	562,037
Equity in net income of non-consolidated companies, less dividends received	(92,804)	(90,677)
Deferred income taxes	170,198	68,315
Provided from operations	1,495,737	1,114,899
New long-term debt	316,936	508,752
Disposition of property and noncurrent investments	165,672	96,065
Sale of common stock to employees	36,524	12,675
Total working capital provided	2,014,869	1,732,391
Use of Working Capital		
New plant properties	1,267,719	1,075,173
Cash dividends declared	271,798	236,480
Purchase of treasury stock	39,899	53,853
Reduction of long-term debt	199,221	44,841
Increase in noncurrent receivables and sundry assets	70,163	30,897
Investment in associated companies (50% owned)	193,154	
Total working capital used	2,041,954	1,441,244
Increase (Decrease) in Working Capital	$ (27,085)	$ 291,147
Increase (Decrease) in Working Capital by Element		
Cash and marketable securities	$ (146,820)	$ 263,173
Receivables	405,201	291,193
Deferred taxes	65,100	(3,477)
Inventories	313,557	(67,973)
Notes payable and current portion of long-term debt	(140,574)	121,711
Accounts payable	(337,280)	(191,862)
Income taxes and accruals	(186,269)	(121,618)
Increase (Decrease) in Working Capital	$ (27,085)	$ 291,147

See Accounting Principles and Notes to Financial Statements

Notes to Financial Statements

A. GAIN ON SALE OF OIL AND GAS PROPERTIES Maligne Resources Limited, a wholly-owned subsidiary of Dow Chemical of Canada Limited, has owned a 25 percent undivided interest in a portion of the onshore oil and gas properties of Dome Petroleum Limited under the terms of a 1974 agreement. In December 1979, Maligne exercised its right to acquire a like interest in significant additional onshore properties from Dome. Maligne then sold a half interest in essentially all of its oil and gas interests to TCPL Resources Ltd., a wholly-owned subsidiary of TransCanada PipeLines Limited. One of the conditions of sale is that certain areas under active exploration have provision for reevaluation of purchase prices in 1981 and 1982. Using the tentative contract prices, the transaction resulted in a pre-tax gain of $84.8 million and $50.1 million after tax, or $.28 per share.

The two parties then entered into a joint venture which provides that each contribute their oil and gas properties as the initial investment. The joint venture will pursue acquisition, exploration and development programs intended to increase the existing hydrocarbon reserves.

B. INVENTORIES 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, 1979 and 1978 was $794.6 million and $412.4 million, respectively.

C. INVESTMENTS The Company's equity in the net assets of investments accounted for by the equity method approximated the carrying amount of such investments at December 31, 1979 and 1978. Dividends received from the companies were $30.6 million in 1979 and $23.2 million in 1978.

D. MARKETABLE EQUITY SECURITIES Other investments at December 31, 1979 and 1978 included marketable equity securities, at cost, in the amount of $8.5 million and $3.0 million, respectively. The market value of these securities exceeded cost by $1.3 million at December 31, 1979 and $2.0 million at December 31, 1978, after deducting $0.7 million of unrealized losses at December 31, 1979 and $0.1 million at December 31, 1978.

E. FOREIGN CURRENCY The effect of foreign currency translation and exchange adjustments on income was a loss of $6.3 million for 1979 and a gain of $10.0 million for 1978.

F. INVESTMENT GRANTS Sundry income includes investment grants of $7.8 million in 1979 and $4.7 million in 1978.

G. PLANT PROPERTIES Plant properties consisted of the following:

	December 31 1979	December 31 1978
	(In thousands)	
Land	$ 155,341	$ 141,698
Land and waterway improvements	249,607	231,585
Buildings	681,075	593,201
Machinery and equipment	5,975,265	5,291,740
Wells and brine systems	213,879	200,638
Office furniture and equipment	132,051	118,664
Oil and gas land and leaseholds	112,231	160,889
Other	62,146	45,026
Construction in progress	1,327,649	1,254,197
Total	8,909,244	8,037,638
Less — Accumulated depreciation	3,672,840	3,275,509
Net	$5,236,404	$4,762,129

H. LEASED PROPERTIES Capital leases included with owned property in the balance sheet were:

	December 31 1979	December 31 1978
	(In thousands)	
Land	$ 522	
Land and waterway improvements	149	
Buildings	1,392	$ 250
Machinery and equipment	165,403	176,997
Office furniture and equipment	8,051	13,112
Total	175,517	190,359
Less — Accumulated depreciation	103,371	99,661
Net	$ 72,146	$ 90,698

Minimum lease commitments at December 31, 1979 were as follows:

	Capital Leases	Operating Leases
	(In thousands)	
1980	$ 24,992	$ 43,165
1981	20,586	32,575
1982	14,458	27,953
1983	11,536	24,372
1984	10,925	21,831
1985 and thereafter	100,036	141,352
Total minimum lease payments	182,533	$291,248
Less Estimated executory costs	446	
Net minimum lease payments	182,087	
Less — Amounts estimated to represent interest	70,281	
Present value of net minimum lease obligations	111,806	
Less — Current accounts payable	16,180	
Long-term capital lease obligations	$ 95,626	

Minimum operating lease commitments have not been reduced by minimum sublease rentals of $3.5 million due in the future under noncancelable subleases.

Rental payments under operating leases charged to expense were:

	1979	1978
	(In thousands)	
Minimum rentals	$ 92,060	$ 86,886
Contingent rentals	7,652	1,339
Less — Sublease rentals	(2,470)	(1,610)
Net	$ 97,242	$ 86,615

I. LONG-TERM DEBT AND AVAILABLE CREDIT FACILITIES Details of debt due after one year were as follows:

	December 31	
	1979	1978
	(In thousands)	
Promissory notes.		
8.00%, final maturity 1986	$ 120,000	$ 120,000
4.50%, final maturity 1990	70,000	75,000
5.00%, final maturity 1991	60,000	64,000
Debentures:		
7.40%, final maturity 1987, Canadian dollar	214,025	210,800
4.35%, final maturity 1988	42,270	47,247
6.70%, final maturity 1998	69,264	73,051
9.625%, final maturity 1994	200,000	
7.75%, final maturity 1999	73,252	79,948
8 875%, final maturity 2000	108,150	120,000
8.90%, final maturity 2000	111,043	120,000
7.40%, final maturity 2002	86,142	91,072
7.625%, final maturity 2003	89,964	93,044
8.50%, final maturity 2005	225,000	225,000
8.50%, final maturity 2006	200,000	200,000
7.875%, final maturity 2007	300,000	300,000
8.625%, final maturity 2008	300,000	300,000
Bonds.		
6.25%, final maturity 1988, Swiss franc		49,383
8.50%, final maturity 1989, Swiss franc	37,500	37,037
Other — Various rates and maturities		
Foreign currency loans	105,880	70,961
Brazilian U.S. dollar loans	240,775	316,835
Other U.S. dollar loans	157,293	85,446
Pollution control bond obligations	157,135	148,325
Capital lease obligations	95,626	116,987
	3,063,319	2,944,136
Less — Unamortized debt discount	8,340	6,872
Total	$3,054,979	$2,937,264

The average interest rate on long-term debt was 8.4% compared to 8.1% in 1978.

Installments due on long-term debt and capital lease obligations in the five years after 1979 are (in millions): 1980, $72.7; 1981, $141 4; 1982, $142 9; 1983, $180.7; 1984, $184.9.

The Company had approximately $480 million of committed credit unused and available at December 31, 1979 under agreements with various United States banks which require retention of average cash balances aggregating approximately $34 million. These requirements were satisfied by balances maintained for normal business operations.

Other unused credit included $456.7 million available to the Company under revolving credit agreements, and $288.8 million for use by foreign subsidiaries.

J. STOCKHOLDERS' EQUITY The authorized capital stock consists of 25,000,000 preferred shares with a par value of $1.00 per share, none of which has been issued, and common capital stock of 500,000,000 shares with a par value of $2.50.

Changes in the number and amount of issued shares of common stock were:

	Shares	Amount
		(thousands)
Issued January 1, 1978	198,550,656	$496,377
Sold to employees	530,100	1,325
Conversion of debentures	1,380	3
Issued December 31, 1978	199,082,136	497,705
Sold to employees	1,462,521	3,656
Conversion of debentures	10,337	26
Issued December 31, 1979	200,554,994	$501,387

The number of shares of treasury stock held at December 31, 1979 and 1978 was 19,373,819 and 17,907,898, respectively.

K. OIL AND GAS PRODUCING ACTIVITIES The Company is engaged in limited oil and gas producing activities, primarily in the United States and Canada, which are not material to its business operations or financial position. The aggregate amount of capitalized costs at December 31, 1979 was $231.7 million, with accumulated depreciation and depletion of $91.9 million, as compared with $219.8 million and $86.3 million, respectively, at December 31, 1978. Costs of oil and gas operations for 1979 were $103.2 million for property acquisition and development and $50.8 million for exploration and production (lifting) costs. Comparable amounts for 1978 were $33.1 million and $36.8 million, respectively.

Estimated quantities of proved oil and gas reserves (unaudited) at December 31, 1979 were 12.2 million barrels of crude oil, condensate and natural gas liquids, and 493.4 billion cubic feet of natural gas, as compared with (unaudited) 10.8 million barrels of crude oil, condensate and natural gas liquids, and 546.5 billion cubic feet of natural gas at December 31, 1978. The present value of estimated future net revenues at December 31, 1979 amounts to $487.0 million (unaudited).

L. TAXES ON INCOME The provision for taxes on income consisted of:

(In millions)	Federal	State and Local	Foreign	Total
1979				
Current	$250.8	$ 14.9	$143.6	$409.3
Deferred	33.5		72.2	105.7
Total	$284.3	$ 14 9	$215.8	$515.0
1978				
Current	$192.1	$ 17 7	$102.3	$312.1
Deferred	54.5		17.3	71 8
Total	$246 6	$ 17 7	$119.6	$383 9

The current tax provision was reduced by investment tax credits of $98.1 million in 1979 and $79.2 million in 1978.

Deferred tax provisions related to the following:

	1979	1978
	(In millions)	
Excess of depreciation and depletion claimed for tax purposes over book amounts	$113.4	$49 1
Doubtful accounts and other losses in excess of those deductible currently for tax purposes	(5.3)	(4.3)
Undistributed earnings of foreign subsidiaries deemed not to be permanently invested	10.5	7.4
Income of export companies	2.5	11.4
Intercompany profit eliminated in consolidation	(6.9)	1.5
Use of LIFO method in countries where it is not allowed for tax purposes	(39 5)	3.2
Other—net	31.0	3.5
Total	$105 7	$71.8

Effective consolidated tax rates for 1979 and 1978 were 39.2% and 39.7%, respectively. Major differences between these rates and the United States statutory rate were:

	Percent	
	1979	1978
Statutory rate	46.0	48.0
U.S. investment credits	(6.3)	(7.0)
Taxes on income of foreign operations at tax rates different from U.S. statutory rate	0.7	1.5
Untaxed equity in income of companies whose accounts are not consolidated	(3.5)	(4.6)
State and local income taxes (net of federal tax)	0.6	1.0
Other	1.7	0.8
Effective rate	39.2	39.7

Unremitted earnings of subsidiary and 50%-owned companies which are deemed to be permanently invested amounted to approximately $1.2 billion and $1.0 billion at December 31, 1979 and 1978, respectively.

Income tax returns filed in the United States through 1973 have been settled.

M. STOCK OPTION AND AWARD PLANS At the May 1979 annual meeting, the stockholders authorized the Board of Directors to put into effect The Dow Chemical Company 1979 Award and Option Plan. The Plan provides a maximum of 6,100,000 shares of its common stock to officers and other managerial, administrative or professional employees of the Company who may be granted awards of deferred stock or options pursuant to the Plan, in lieu of cash for services. During the five-year period from the date of adoption of the Plan, the Company may grant options, incentive rights or a combination thereof covering an aggregate of 4,000,000 shares of common stock which may be purchased upon exercise of options or may be transferred in respect of incentive rights. The Company may also grant awards during the ten-year period ending May 1989 of 2,100,000 shares of deferred stock plus dividend units not to exceed 1,500,000 outstanding at any one time.

Deferred stock awarded in 1979 and 1978 was 327,781 and 102,784 shares, respectively. 1979 included 1,420 shares of deferred stock awarded under the 1969 Award Plan. The ten-year award period for this plan ended in May 1979. At December 31, 1979 and 1978, there were 1,773,639 and 1,694,905 shares, respectively, available for grant. Dividend units represent the right to receive for a specified period cash payments equivalent in value to cash dividends paid during such period on one share of common stock. Dividend units awarded in 1979 and 1978 were 8,052 and 8,148, respectively. Outstanding dividend units at December 31, 1979 and 1978 were 363,210 and 355,158, respectively; dividend units available for grant at December 31, 1979 and 1978 were 1,493,964 and 1,144,842, respectively.

In addition, management incentive awards which are related to consolidated net income may be granted to key employees, including directors and officers. Awards may be made in dividend units or deferred stock authorized by the Award Plan, or in cash, or a combination thereof.

Plans for granting to officers and key employees options to purchase common stock at the fair market value at date of grant were authorized in 1972, 1976 and 1979. Changes in the number of shares optioned under these plans were:

	1979	1978
Outstanding January 1	3,973,215	4,004,118
Granted	607,450	639,600
Exercised	(118,525)	(8,370)
Expired or terminated	(559,810)	(662,133)
Outstanding December 31	3,902,330	3,973,215
Exercisable December 31	3,294,880	3,333,615
Available for grant December 31	3,823,150	323,800
Price range on outstanding options at December 31	$22.14 to $53.94	$22 14 to $53.94

Aggregate amounts charged to expense for all plans were $11.8 million and $5.3 million in 1979 and 1978, respectively.

The Company made offerings of common stock to its employees, excluding directors, in 1979 at $22.60 per share, and in 1978 at $22.75 per share, or at the market price if lower on the date of distribution, payable generally through payroll deductions. Unfilled subscriptions, which may be cancelled at the option of the employee, were 1,193,841 and 1,271,707 shares, respectively, at December 31, 1979 and 1978. Partial payments on these subscriptions aggregating $17.3 million and $19.8 million at December 31, 1979 and 1978, respectively, are included in current liabilities.

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

N. INVESTMENT BENEFIT PLAN Under the Tax Reform Act of 1976, the Company is entitled to an additional one percent investment tax credit if a like amount is used to acquire its stock for distribution to employees. To carry out these provisions, the Company established in 1976 the Dow Investment Benefit Plan for all U.S. employees excluding directors. Cost of $7.3 million in 1979 and $6.9 million in 1978 was offset in income tax expense by an equivalent amount of investment tax credit.

O. RETIREMENT PLANS The cost of all retirement plans was $115.3 million in 1979 and $101.1 million in 1978.

For the Company's major plan, actuarially determined value of vested benefits exceeded the market value of the fund by $12.3 million at December 31, 1979. Payments to beneficiaries under this plan were $31.6 million in 1979 and $24.9 million in 1978.

P. CONTINGENT LIABILITIES Suits have been started against the Company and certain subsidiaries because of alleged product damage and other claims. All suits are being contested and the amount of uninsured liability thereunder is considered to be adequately provided for.

The Company has contracted to purchase electricity and process steam from a nuclear power plant being constructed by Consumers Power Company at Midland, Michigan. If due to regulatory problems, (1) Consumers is unable to complete this plant prior to December 31, 1984, or (2) the Company terminates its purchase contract, the Company would be obligated to pay a termination fee, which as of December 31, 1979 is estimated at $175 million and $350 million, respectively.

A Canadian subsidiary has entered into an agreement to purchase substantially all of the output of an ethylene plant in the Province of Alberta. The owner of the plant, The Alberta Gas Ethylene Company, Ltd., has borrowed $325 million which has been guaranteed as to principal and interest by the Company.

As a result of recent political disturbances, three minor subsidiaries in Iran have been eliminated from the consolidated group. A provision of $3.4 million for possible losses has been included in accrued liabilities in the accompanying financial statements.

Q. QUARTERLY STATISTICS Unaudited results were as follows (in millions, except per share):

1979	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Net sales	$2,075	$2,307	$2,426	$2,447	$9,255
Cost of sales	1,585	1,753	1,888	2,006	7,232
Operating income	337	395	366	236	1,334
Net income	176	215	199	194	784
Earnings per share	.97	1.19	1.09	1.08	4.33
Cash dividends paid per share	.35	.35	.35	.40	1.45
Market price range of common stock:					
High	29.63	29.00	34.88	33.75	34.88
Low	24.38	24.75	25.00	27.13	24.38
1978					
Net sales	$1,649	$1,748	$1,674	$1,817	$6,888
Cost of sales	1,276	1,329	1,271	1,408	5,284
Operating income	248	287	272	244	1,051
Net income	130	154	153	138	575
Earnings per share	.71	.84	.85	.76	3.16
Cash dividends paid per share	.30	.30	.30	.35	1.25
Market price range of common stock:					
High	27.25	28.50	30.88	30.88	30.88
Low	22.00	22.00	23.50	24.63	22.00

R. GEOGRAPHIC AND INDUSTRY SEGMENTS The Company conducts its worldwide operations through separate geographic area organizations which represent major markets or combinations of related markets. The results for all areas for 1979 and 1978 were (in millions):

	United States	Europe/ Africa	Canada	Pacific	Latin America	Brazil	Elim. & Corp. Assets	Consoli- dated
Year ended December 31, 1979:								
Sales to unaffiliated customers	$4,583	$2,663	$ 630	$627	$476	$276		$ 9,255
Transfers between areas	816	188	44	—	4	18	$(1,070)	—
Total sales and transfers	$5,399	$2,851	$ 674	$627	$480	$294	$(1,070)	$ 9,255
Operating income	$ 685	$ 349	$ 66	$117	$102	$ 15	—	$ 1,334
Profit (loss) before income taxes	$ 626	$ 334	$ 135	$130	$101	$ 4	$ (17)	$ 1,313
Identifiable assets at December 31, 1979	$4,851	$2,458	$1,317	$636	$364	$614	$ 12	$10,252
Year ended December 31, 1978.								
Sales to unaffiliated customers	$3,646	$1,813	$ 439	$404	$337	$249		$6,888
Transfers between areas	606	123	25	1	2	9	$(766)	—
Total sales and transfers	$4,252	$1,936	$ 464	$405	$339	$258	$(766)	$ 6,888
Operating income	$ 682	$ 212	$ 44	$ 55	$ 41	$ 17	—	$ 1,051
Profit (loss) before income taxes	$ 617	$ 218	$ 28	$ 73	$ 38	$ (6)	—	$ 968
Identifiable assets at December 31, 1978	$4,330	$2,058	$ 922	$536	$261	$625	$ 57	$ 8,789

Transfers between areas are valued at cost plus a markup. There were no direct sales to foreign customers from domestic operations.

Aggregation of products into industry segments is generally made on the basis of process technology and channels of distribution. The Chemicals/Metals segment embodies chemicals, hydrocarbon intermediates and the Company's magnesium business. The Plastics/Packaging segment includes large volume polyethylene and polystyrene products as well as a variety of plastic coatings, films and foams. The Bioproducts/Consumer Products segment encompasses human, animal and plant health care products, in addition to household films and cleaning chemicals.

Industry segment results for 1979 and 1978 were (in millions):

	Chemicals/ Metals	Plastics/ Packaging	Bioproducts/ Consumer Products	Eliminations & Corp. Assets	Consolidated
Year ended December 31, 1979:					
Sales to unaffiliated customers	$4,786	$3,458	$1,011		$ 9,255
Intersegment transfers	1,170	37	39	$(1,246)	—
Total sales and transfers	$5,956	$3,495	$1,050	$(1,246)	$ 9,255
Operating income	$ 578	$ 693	$ 63	—	$ 1,334
Identifiable assets at December 31, 1979	$5,668	$2,206	$1,033	$1,345	$10,252
Depreciation	$ 428	$ 154	$ 52	—	$ 634
Additions to property	$ 992	$ 205	$ 71	—	$ 1,268

	Chemicals/ Metals	Plastics/ Packaging	Bioproducts/ Consumer Products	Eliminations & Corp. Assets	Consolidated
Year ended December 31, 1978:					
Sales to unaffiliated customers	$3,535	$2,479	$ 874		$6,888
Intersegment transfers	862	40	9	$ (911)	
Total sales and transfers	$4,397	$2,519	$ 883	$ (911)	$6,888
Operating income	$ 543	$ 414	$ 94		$1,051
Identifiable assets at December 31, 1978	$4,868	$1,911	$ 874	$1,136	$8,789
Depreciation	$ 376	$ 137	$ 49		$ 562
Additions to property	$ 841	$ 180	$ 54		$1,075

Transfers between industry segments are generally valued at standard cost.

It is not practicable to estimate what the impact might be upon the revenue or profitability of geographic areas or industry segments if transfers/purchases had been made at the prevailing market prices.

S. SUPPLEMENTARY INFORMATION ON EFFECTS OF CHANGING PRICES (Unaudited) The first table below shows certain income data presented in the historical cost income statement on page 23, adjusted to constant dollars and current costs expressed in dollar values generally at the average 1979 price level. The changes to costs and income are presumed to reflect some of the deleterious effects of inflation on reported income under the two different methods of measuring inflation. Those changes are moderated because the primary financial statements already give substantial recognition to the effects of inflation by worldwide use of declining balance depreciation and the last-in, first-out method for valuing inventories.

The second table is a five-year comparison of selected supplementary financial data adjusted for effects of changing prices. Certain information pertaining to years ended on or before December 31, 1978 is omitted because it is impracticable to obtain such information.

Consolidated Statement of Income Adjusted for Changing Prices
Year Ended December 31, 1979
(In millions)

	As Reported in the Financial Statements	Adjusted for General Inflation (Constant Dollars)	Adjusted for Changes in Specific Prices (Current Costs)
Net sales	$9,255	$9,255	$9,255
Cost of sales, excluding depreciation	6,617	6,645	6,645
Depreciation expense	634	668	694
Interest expense — net	272	272	272
Gain on sale of oil and gas properties	(85)	(85)	(85)
Other operating expense	518	518	518
Provision for taxes on income	515	515	515
	8,471	8,533	8,559
Income from continuing operations	784	722	696
Purchasing power gain on net monetary liabilities held during the year		435	435
Increase in the general price level over increase in specific prices			(355)
Total	$ 784	$1,157	$ 776

Five-Year Comparison of Selected Supplementary Financial Data Adjusted for Effects of Changing Prices (Average 1979 Dollars)

	Years Ended December 31				
	1979	1978	1977	1976	1975
	(In millions, except per share data)				
Historical cost information adjusted for general inflation (constant dollars):					
Net sales	$9,255	$7,670	$7,474	$7,214	$6,598
Income from continuing operations	722				
Income from continuing operations per share	3.99				
Purchasing power gain on net monetary liabilities held during the year	435				
Net assets held at year-end	6,316				
Current cost information:					
Income from continuing operations	696				
Income from continuing operations per share	3.84				
Increase in the general price level over increase in specific prices	355				
Net assets held at year-end	6,690				
Cash dividends declared per share	1.48	1.44	1.37	1.21	1.01
Market price per share at year-end	30.30	26.68	31.28	54.16	59.94
Average Consumer Price Index (1967 = 100)	217.6	195.4	181.5	170.5	161.2

Income tax expense as shown by the primary financial statements has not been changed.

Historical Cost Adjusted for General Inflation

The supplemental data in constant dollars reflect historical costs adjusted for changes in purchasing power of the dollar as measured by the Consumer Price Index for All Urban Consumers published by the Bureau of Labor Statistics.These amounts do not purport to represent appraised value or any other measure of current value. Depreciation was computed under the straight line method.

At December 31, 1979, there was an excess of monetary liabilities over monetary assets. As inflation erodes the purchasing power of the dollar, net debts are repayable with dollars of lesser value resulting in a gain in purchasing power of $435 million.

Current Costs

Cost of sales was calculated by applying the last-in, first-out method to all inventories. Inventories valued at $2,117 million at December 31, 1979 were determined by using the year-end purchase prices of raw materials and supplies and the standard cost of manufacturing for finished goods and work-in-process inventories which approximates current cost.

Net plant properties were determined primarily through the use of indices related specifically to the construction cost of chemical plants. These values which totaled $7,629 million at December 31, 1979 represent the estimated current costs of existing assets and do not consider technological improvements and efficiencies associated with normal replacement of productive capacities. Depreciation was computed using the straight line method.

Cost for assets outside the United States was determined in local currency and translated into U.S. dollars at exchange rates in effect at year-end.

Increases in current costs of inventories and plant properties held during the year, less the effect of general inflation, are not included in income from continuing operations but are shown below:

	Inventories	Plant Properties	Total
Increase in current cost	$380	$ 420	$ 800
Less—General inflation	223	932	1,155
Net	$157	$(512)	$ (355)

Geographic Results
(Unaudited)

(dollars in millions)

Sales

	1979	1978	1977	1976	1975
United States	$4,583	$3,646	$3,457	$3,077	$2,724
Europe/Africa	2,663	1,813	1,618	1,502	1,273
Canada	630	439	396	370	323
Pacific	627	404	295	270	181
Latin America	476	337	277	234	225
Brazil	276	249	191	199	162
TOTAL	$9,255	$6,888	$6,234	$5,652	$4,888

Operating Income

	1979	1978	1977	1976	1975
United States	$ 685	$ 682	$ 664	$ 641	$ 635
Europe/Africa	349	212	201	230	249
Canada	66	44	63	68	82
Pacific	117	55	38	52	29
Latin America	102	41	50	52	52
Brazil	15	17	4	53	30
TOTAL	$1,334	$1,051	$1,020	$1,096	$1,077

Profit (Loss) Before Tax

	1979	1978	1977	1976	1975
United States	$ 626	$ 617	$ 621	$ 610	$ 606
Europe/Africa	334	218	194	237	299
Canada	135	28	46	66	80
Pacific	130	73	43	59	46
Latin America	101	38	47	50	55
Brazil	4	(6)	(20)	17	24
Unallocated	(17)				
TOTAL	$1,313	$ 968	$ 931	$1,039	$1,110

Gross Plant Properties

	1979	1978	1977	1976	1975
United States	$5,488	$4,951	$4,489	$3,984	$3,292
Europe/Africa	1,631	1,522	1,441	1,290	1,096
Canada	1,059	927	682	477	436
Pacific	243	184	129	91	63
Latin America	82	79	77	73	72
Brazil	406	375	340	256	145
TOTAL	$8,909	$8,038	$7,158	$6,171	$5,104

Capital Expenditures

	1979	1978	1977	1976	1975
United States	$ 748	$ 616	$ 661	$ 764	$ 577
Europe/Africa	126	106	162	200	185
Canada	292	250	210	88	65
Pacific	58	62	40	30	23
Latin America	8	4	5	5	7
Brazil	36	37	85	113	78
TOTAL	$1,268	$1,075	$1,163	$1,200	$ 935

Employees
(thousands)

	1979	1978	1977	1976	1975
United States	34.1	32.3	32.0	31.9	31.2
Europe/Africa	11.4	11.4	11.6	11.6	12.1
Canada	3.8	3.3	3.0	2.8	2.8
Pacific	1.9	1.8	1.7	1.7	1.6
Latin America	2.5	2.6	2.7	2.8	3.2
Brazil	2.2	2.1	2.2	2.2	2.2
TOTAL	55.9	53.5	53.2	53.0	53.1

Product Group Results

(Unaudited)

(dollars in millions)		1979	1978	1977	1976	1975
Sales	Chemicals/Metals ...	$4,786	$3,535	$3,333	$3,048	$2,747
	Plastics/Packaging ...	3,458	2,479	2,146	1,891	1,429
	Bioproducts/ Consumer Products .	1,011	874	755	713	712
	TOTAL	$9,255	$6,888	$6,234	$5,652	$4,888

Product Group Sales Analysis

Chemicals/Metals Group	Uses	Approximate Sales (In millions) 1979	1978
Inorganic Chemicals		$1,121	$ 916
Major Products			
Caustic soda	Production of paper, alumina, rayon, petroleum products and industrial chemicals		
Chlorinated solvents	Metal cleaning, dry cleaning, paint removers		
Chlorine	Chemical intermediate, water treatment, paper		
Ethylene dibromide	Leaded gasoline, soil and grain fumigant		
Organic Chemicals		1,584	1,189
Major Products			
Acetone	Solvent, production of methyl methacrylate		
Ethylene glycol	Antifreeze, polyester fiber production		
Glycerine	Alkyd resins, tobacco products		
Isocyanates and VORANOL polyglycols	Rigid, elastomeric and flexible urethane products and foams		
Phenol	Plastic resins and adhesives		
Propylene glycols	Polyester resins, pet food humectant		
Metals		321	291
Major Products			
Magnesium sheet, plate and extrusions	Commercial and military products		
Magnesium ingot	Aluminum alloys, steel processing		
Functional Chemicals and Services		835	687
Major Products & Services			
Calcium chloride	Highway deicing & dust control		
Dow Industrial Service	Industrial equipment cleaning		
Dowell Division	Petroleum production services		
Hydroscience Associates, Inc. ...	Waste treatment engineering		
Hydrocarbons		925	452
Major Products			
Ethylene	Chemical intermediate		
Wanda Petroleum	Trading and marketing of petroleum products		
Oil and Gas Division	Fuel and petroleum products		
Total sales		$4,786	$3,535
Plastics/Packaging Group			
Molding Materials		$1,749	$1,156
Major Products			
Acrylonitrile-butadiene-styrene (ABS)	Used in injection molding, blow molding and extrusion processes for fabrication of articles and in the automotive, appliance, packaging, wire and cable, housewares, toy and construction industries		
High density polyethylene			
Low density polyethylene			
STYRON polystyrene			

Operating Income

	1979	1978	1977	1976	1975
Chemicals/Metals ...	$ 578	$ 543	$ 603	$ 622	$ 694
Plastics/Packaging ...	693	414	373	392	301
Bioproducts/ Consumer Products .	63	94	44	82	82
TOTAL	$1,334	$1,051	$1,020	$1,096	$1,077

Plastics/Packaging Group *(Cont.)*	Uses	Approximate Sales (In millions) 1979	1978
Coatings and Monomers		$1,301	$ 970
Major Products			
Epoxy resins	Coatings, adhesives, laminates		
Styrene-butadiene latexes	Paper and carpeting		
Styrene monomer	Production of polystyrene plastic		
Vinyl chloride monomer	Production of polyvinylchloride plastic		
Plastic Products		408	353
Major Products			
Polyethylene film	Industrial packaging, agricultural use		
Polystyrene film and sheet.......	Functional and decorative packaging		
STYROFOAM polystyrene foam ..	Insulation, floral and craft uses		
SARAN film	Commercial packaging		
Total sales		$3,458	$2,479
Bioproducts/Consumer Product Group			
Health Care Products and Services		$ 426	$ 380
Major Products & Services			
Bio-Science Enterprises	Diagnostic services		
Diagnostic products and equipment	Medical laboratory tests		
NOVAHISTINE products	Cough and cold preparations		
RIFADIN and RIFOCIN antibiotics	Broad spectrum antibiotics used primarily for TB treatment		
Agricultural Chemicals		471	398
Major Products			
COYDEN and ZOAMIX coccidiostats	Treatment of poultry disease		
DURSBAN insecticide	Broad range insecticide		
Phenoxy herbicides	Weed and brush control		
TORDON herbicide	Weed and brush control		
Consumer Products		114	96
Major Products			
DOW Bathroom Cleaner.........	Household use		
HANDI-WRAP plastic film	Household plastic film		
SARAN WRAP plastic film	Household plastic film		
ZIPLOC bags	Food storage		
Total sales		$1,011	$ 874

Condensed Comparative Statements

(In millions except per share)

		1979	1978
Financial Condition	Current Assets:		
	Cash and marketable securities	$ 252	$ 398
	Receivables (less reserves)	2,188	1,718
	Inventories	1,313	1.000
	Total current assets	3,753	3,116
	Current Liabilities:		
	Notes payable	528	386
	Accounts payable and accruals	2,087	1,565
	Total current liabilities	2,615	1,951
	Working capital (A)	1,138	1,165
	Net Property (B)	5,236	4,762
	Other Assets (C)	1,263	911
	Investment (A) plus (B) plus (C) (D)	7,637	6,838
	Long-Term Indebtedness	3,055	2,937
	Other Liabilities	685	506
	Total (E)	3,740	3,443
	Common Stockholders' Equity (D) minus (E)	$3,897	$3,395
Income	Net sales	$9,255	$6,888
	Cost of sales	7,231	5,284
	Selling and administrative expenses	690	552
	Operating income	1,334	1,051
	Investment and sundry income — net	251	154
	Interest expense	(272)	(237)
	Taxes on income	515	384
	Minority interests' share in income	14	9
	Income before extraordinary items and cumulative effect of accounting change	784	575
	Extraordinary items — net of tax		
	Cumulative effect of accounting change — net of tax		
	Net income	$ 784	$ 575
	Per share of common stock (in dollars) (*):		
	Income before extraordinary items and cumulative effect of accounting change	$4.33	$3.16
	Extraordinary items		
	Cumulative effect of accounting change		
	Net income per share	$4.33	$3.16
	Cash dividends paid per share	$1.45	$1.25
	Average common shares outstanding (thousands)	181,149	182,091
Other Statistics	Additions to property	$1,268	$1,075
	Depreciation	634	562
	Research and development expenses	269	232
	Taxes (major)	748	572
	Wages and salaries paid	1,301	1,113
	Cost of employee benefits	297	262
	Number of employees at year-end (thousands)	55.9	53.5
	Market closing price on December 31(*)	32.13	24.88

* *Adjusted for stock splits.*

† *If the accounting change is applied retroactively, pro forma net income per share before extraordinary items would be: 1974, $3.03; 1973, $1.40; 1972, $.98; 1971, $.82; 1970, $.69.*

1977	1976	1975	1974	1973	1972	1971	1970
$ 135	$ 132	$ 374	$ 423	$ 317	$ 162	$ 106	$ 78
1,430	1,323	1,070	1,039	744	595	504	445
1,067	998	814	722	497	423	395	368
2,633	2,454	2,260	2,185	1,560	1,181	1,005	891
470	429	268	220	214	269	368	229
1,288	1,281	1,225	1,358	797	533	423	407
1,759	1,710	1,494	1,579	1,011	802	791	636
874	744	766	605	549	379	214	255
4,276	3,649	2,884	2,334	1,875	1,745	1,564	1,438
842	840	797	674	557	481	508	474
5,993	5,233	4,448	3,613	2,982	2,605	2,287	2,168
2,473	1,998	1,684	1,426	1,339	1,201	1,010	969
422	388	331	247	119	77	75	65
2,896	2,386	2,016	1,674	1,459	1,278	1,085	1,035
$3,097	$2,847	$2,431	$1,939	$1,523	$1,326	$1,202	$1,132
$6,234	$5,652	$4,888	$4,938	$3,067	$2,403	$2,052	$1,911
4,734	4,125	3,398	3,395	2,226	1,757	1,517	1,417
480	431	413	405	330	286	250	233
1,020	1,096	1,077	1,137	510	359	284	259
131	104	141	41	58	58	43	36
(220)	(160)	(107)	(90)	(92)	(93)	(78)	(73)
372	420	473	523	199	129	91	88
5	6	5	5	9	7	4	4
553	611	630	560	267	187	154	130
			11	4			(27)
			(41)		(6)		
$ 553	$ 611	$ 630	$ 530	$ 272	$ 181	$ 154	$ 102
$3.00	$3.30	$3.40	$3.03	$1.46	$1.02	$ .85	$ .72
			.06	.02			(.16)
			(.22)÷		(.03)		
$3.00	$3.30	$3.40	$2.87	$1.48	$ .99	$ .85	$ .56
$1.10	$ .90	$ .73	$ .55	$ .48	$ .45	$ .44	$ .43
184,354	185,412	185,205	185,022	184,228	182,648	181,714	181,150
$1,163	$1,200	$ 935	$ 890	$ 415	$ 359	$ 364	$ 348
492	420	363	343	275	234	218	207
203	187	167	148	118	104	95	91
550	596	635	613	314	218	161	136
976	887	790	738	611	516	464	433
223	205	170	149	101	85	72	64
53.2	53.0	53.1	53.3	49.8	48.8	47.8	47.4
26.75	43.38	45.81	27.50	28.75	25.38	19.72	12.27

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G. James Williams
Financial Vice President

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Herbert H. Dow
Secretary

Wilson A. Gay
Treasurer

A. P. Hanmer
Vice President
and Controller

I. F. Harlow
Vice President
and General Counsel

J. M. Leathers
Vice President

H. H. Lyon
Vice President

M. E. Pruitt
Vice President

David L. Rooke
Vice President

G. James Williams
Financial Vice President

R. W. Barker
Assistant Secretary

Dale A. Bywater
Auditor

Lois J. Hoerlein
Assistant Secretary

John S. Walshaw
Assistant Treasurer

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Assistant Secretary

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Herbert D. Doan
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David L. Rooke
G. James Williams
Clyde H. Boyd (Alternate)

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Clyde H. Boyd†
Herbert H. Dow
Wilson A. Gay
A. P. Hanmer
I. F. Harlow
Robert W. Lundeen
H. H. Lyon
G. James Williams
E. C. Yehle

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Paul W. McCracken

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Herbert H. Dow
H. H. Lyon††

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Chairman
Wilson A. Gay†
Carl A. Gerstacker
Robert W. Lundeen
H. H. Lyon
E. C. Yehle

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Herbert D. Doan
Julius E. Johnson
Robert W. Lundeen
Keith R. McKennon
Robert E. Naegele
Dave W. Schornstein
Joseph G. Temple, Jr.†
(J. H. Pearce, Secretary)

Nominating Committee

Earle B. Barnes, Chairman†
C. B. Branch
Herbert D. Doan
Carl A. Gerstacker
Paul F. Oreffice

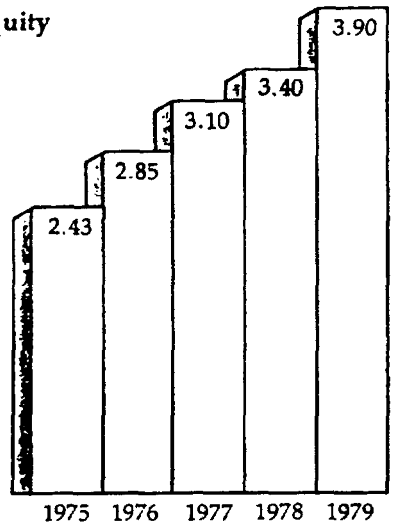
** Elected to the Board of Directors November 8, 1979*
*** Elected to the Board of Directors July 10, 1979.*
† Elected May 2, 1979.
†† Elected December 6, 1979

Of Special Interest to Stockholders...

Stockholders Equity

(Dollars in Billions)

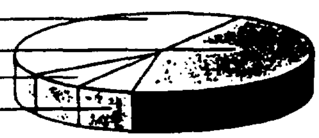
Dow's policy of plowing back earnings in the company means steady growth in stockholders' stake in the business.



Stockholder Profile

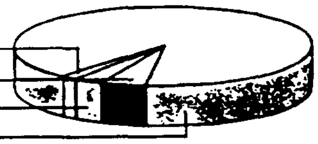
Stockholders, by size of holding

1 to 99 44%
100 to 500 41%
501 to 1,000 8%
1,001 and More 7%



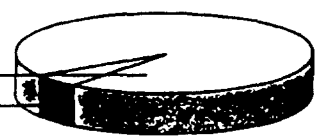
Distribution of shares, by size of holding

1 to 99 1%
100 to 500 7%
501 to 1,000 4%
1,001 and More 88%



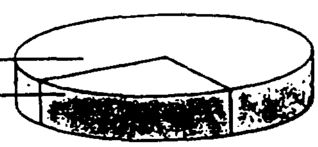
Stockholders, by type

Individuals 95%
Institutions 5%



Distribution of shares, by type of stockholders

Institutions 66%
Individuals 34%



As of December 31, 1979, 141,462 Stockholders of record owned 181,181,175 shares of Dow stock.

Annual Meeting

The 1980 Annual Meeting of stockholders will be held at 2 p.m. (EDT) Friday, May 9, in the Midland Center for the Arts, Midland, Michigan. 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

A copy of 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. Please address: Corporate Secretary, The Dow Chemical Company, 2030 Dow Center, Midland, Michigan 48640.

Exchange Listings

NYSE Symbol: DOW
New York, Midwest, Pacific, Amsterdam, Antwerp, Basel, Bern, Brussels, Dusseldorf, Frankfurt, Geneva, Hamburg, Lausanne, London, Paris, Tokyo, Toronto, Zurich.

Transfer Agents

The AmeriTrust Company
P.O. Box 6477, Cleveland, Ohio 44101

The Royal Trust Company
P.O. Box 7500, Station A
Toronto 116, Ontario, Canada

Registrars

The AmeriTrust Company
P.O. Box 6477, Cleveland, Ohio 44101

Montreal Trust Company
15 King Street West
Toronto, Ontario, Canada M5H 1B4

Dividend Reinvestment Plan

An automatic dividend reinvestment plan is available to all Dow stockholders. Information can be obtained by writing to: AmeriTrust Company, P.O. Box 6477, Cleveland, Ohio 44101.

Cassette Tapes Available

Cassette tapes for the blind of this report and quarterly reports can be obtained by writing: Financial Communications Manager, The Dow Chemical Company, 2030 Dow Center, Midland, Michigan 48640.

Corporate Headquarters

The Dow Chemical Company
2030 Dow Center, Midland, Michigan 48640
Tel: 517-636-1000

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