UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K
[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE
SECURITIES EXCHANGE ACT OF 1934
For the year ended December 31, 1998

Commission file number 1-3285
MINNESOTA MINING AND MANUFACTURING COMPANY
State of Incorporation: Delaware
I.R.S. Employer Identification No. 41-0417775

Executive offices: 3M Center, St. Paul, Minnesota 55144
Telephone number: (651) 733-1110
SECURITIES REGISTERED PURSUANT TO SECTION 12 (b) OF THE ACT: Name of each exchange
Title of each class
Common Stock, Par Value $\$ .50$ Per Share on which registered New York Stock Exchange Pacific Exchange Chicago Stock Exchange

Note: The common stock of the registrant is also traded on the Swiss stock exchange.

Securities registered pursuant to section $12(\mathrm{~g})$ of the Act: None
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or $15(\mathrm{~d})$ of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes X . No .

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

The aggregate market value of voting stock held by nonaffiliates of the registrant, based on the closing price of $\$ 77.63$ per share as reported on the New York Stock Exchange-Composite Index on January 29, 1999, was \$31.2 billion.

Shares of common stock outstanding at January 31, 1999: 402,145,924.
DOCUMENTS INCORPORATED BY REFERENCE
Parts of the following documents are incorporated by reference in Parts III and IV of this Form 10-K: (1) Proxy Statement for registrant's 1999 annual meeting, (2) Form 10-Q for period ended June 30, 1987; Form 8-K dated November 20, 1996; Form 8-K dated June 30, 1997, (3) Registration Nos. 33-48089 and 333-30689.

This document contains 54 pages.
The exhibit index is set forth on page 49.

MINNESOTA MINING AND MANUFACTURING COMPANY
FORM 10-K
For the Year Ended December 31, 1998
PART I
Item 1. Business.
Minnesota Mining and Manufacturing Company was incorporated in 1929 under the laws of the State of Delaware to continue operations, begun in 1902, of a Minnesota corporation of the same name. As used herein, the term "3M" or "company" includes Minnesota Mining and Manufacturing Company and subsidiaries unless the context otherwise indicates.

## General

3 M is an integrated enterprise characterized by substantial intercompany cooperation in research, manufacturing and marketing of products. 3M's business has developed from its research and technology in coating and bonding for coated abrasives, the company's original product. Coating and bonding is the process of applying one material to another, such as abrasive granules to paper or cloth (coated abrasives), adhesives to a backing (pressure-sensitive tapes),
ceramic coating to granular mineral (roofing granules), glass beads to plastic backing (reflective sheeting), and low-tack adhesives to paper (repositionable notes).
$3 M$ is among the leading manufacturers of products for many of the markets it serves. In all cases, 3 M products are subject to direct or indirect competition. Most 3 M products involve expertise in product development, manufacturing and marketing, and are subject to competition from products manufactured and sold by other technically oriented companies.

At December 31, 1998, the company employed 73,564 people.
Business Segments
Financial information and other disclosures relating to 3M's three business segments and operations in various geographic areas are provided in the Notes to Consolidated Financial Statements. 3M's three business segments bring together common or related 3 M technologies, enhancing the development of innovative products and services and providing for efficient sharing of business resources. These segments have worldwide responsibility for virtually all 3 M product lines. A few miscellaneous businesses and staff-sponsored products, as well as various corporate assets and corporate overhead expenses, are not assigned to the segments.

Industrial and Consumer Markets: This segment provides pressuresensitive adhesives, specialty tapes, coated and nonwoven abrasives, consumer and office products, electronic and electrical products, and telecommunications products.

Industrial products include a wide variety of high-performance and general-purpose pressure-sensitive tapes, as well as specialty products. Major products include industrial tapes made from materials such as foil, film, vinyl and polyester; specialty tapes and adhesives, including Scotch brand VHB brand Tapes, lithographic tapes, joining systems, specialty additives, vibration control materials, liquid adhesives, and reclosable fasteners; general-purpose tapes, such as masking, box-sealing and filament; labels and other materials for identifying and marking durable goods; coated and non-woven abrasives for grinding, conditioning and finishing surfaces; finishing compounds; and products for maintaining and repairing vehicles.

Major consumer and office products include Scotch brand tapes; Postit brand Note products, such as flags, memo pads, labels, stickers, pop-up notes and dispensers; home care products, including ScotchBrite brand Scouring Products, O-Cel-O brand Sponges and Scotchgard brand Fabric Protectors; energy control products; nonwoven abrasive materials for floor maintenance and commercial cleaning; floor mattings; and home improvement products, including surface-preparation and wood-finishing materials, and filters for furnaces and air conditioners.

Major electronic and electrical products include packaging and interconnection devices; insulating materials, including pressuresensitive tapes and resins; and related items. These products are used extensively by manufacturers of electronic and electrical equipment, as well as in the construction and maintenance segments of the electric utility, telephone and other industries. Telecommunications products serve the world's telephone companies with a wide array of products for fiber-optic and copper-based telephone systems. These include many innovative connecting, closure and splicing systems, maintenance products and test equipment. Visual communication products serve the world's office and education markets with overhead projectors and transparency films, plus equipment and materials for electronic and multimedia presentations.

Transportation, Safety and Specialty Material Markets: This segment provides reflective sheeting, high-performance graphics, respirators, automotive components, optical films and specialty materials.

Transportation products include reflective sheetings used on highway signs, vehicle license plates, construction workzone devices, trucks and other vehicles. Major occupational health and safety products include maintenance-free and reusable respirators, plus personal monitoring systems. Other products include spill-control sorbents, Thinsulate brand and Lite Loft brand Insulations, traffic control devices, electronic surveillance products, reflective materials for personal safety, and films that protect against counterfeiting.

Major commercial graphic products include equipment, films, inks and related products used to produce graphics for vehicles and signs. Major automotive products include body side-molding and trim; functional and decorative graphics; corrosion-resistant and abrasion-
resistant films; tapes for attaching nameplates, trim and moldings; and fasteners for attaching interior panels and carpeting. Safety and security products include reflective materials that are widely used on apparel, footwear and accessories, enhancing visibility in low-light situations. Optical products include brightness enhancement films for electronic displays and multilayer optical films. Other products include natural and color-coated mineral granules for asphalt shingles. On August 15, 1997, the company sold National Advertising Company, an outdoor and mall advertising subsidiary that was part of this segment.

Major specialty materials include protective materials for furniture, fabrics and paper products; firefighting agents; fluoroelastomers for seals, tubes and gaskets in engines; engineering fluids; and highperformance fluids used in the manufacture of computer chips, and for electronic cooling and lubricating of computer hard disk drives.

Health Care Markets: Major product categories include skin health, medical/surgical supplies and devices, infection control, cardiovascular systems, health care information systems, pharmaceuticals, drug delivery systems, dental products, and closures for disposable diapers.

Medical product lines include skin health and infection protection, as well as microbiology and health information systems. In skin health, 3 M is a leading supplier of medical tapes and dressings. In infection protection, 3 M markets a variety of surgical drapes and masks, as well as sterilization assurance equipment. The segment also provides microbiology products, which make it faster and easier for food processors to test for microbiological quality of food. In health information systems, 3 M markets computer software for hospital coding and data classification. This segment also provides medical supplies and devices, including orthopedic casting materials, electrodes, stethoscopes, heart-lung machines and blood gas monitors.

This segment also serves the pharmaceutical and dental markets, as well as manufacturers of disposable diapers. Among ethical pharmaceuticals are analgesics, anti-inflammatories and cardiovascular products. Other products include drug-delivery systems, such as metered-dose inhalers, transdermal skin patches and related components. Dental products include tooth-colored fillings, crowns, impression materials and orthodontic appliances. This segment also provides tape closures for disposable diapers, and hook-and-loop fastening systems and other diaper components that help diapers fit better.

Discontinued Operations
In November 1995, the Board of Directors approved a plan to launch the company's data storage and imaging businesses as an independent, publicly owned company and to discontinue 3M's audio and video business. This is discussed in the Notes to Consolidated Financial Statements.

Distribution
$3 M$ products are sold directly to users and through numerous wholesalers, retailers, jobbers, distributors and dealers in a wide variety of trades in many countries around the world. Management believes that the confidence of wholesalers, retailers, jobbers, distributors and dealers in 3 M and its products, developed through long association with skilled marketing and sales representatives, has contributed significantly to 3M's position in the marketplace and to its growth. 3 M has 240 sales offices and distribution centers worldwide, including nine major branch offices located in principal cities throughout the United States. 3 M operates 30 sales offices and distribution centers in the United States. Internationally, 3 M has 210 sales offices and distribution centers.

Research, Patents and Raw Materials
Research and product development constitute an important part of $3 M^{\prime}$ s activities. Products resulting from research and development have been major drivers of 3M's growth. Research and development spending totaled $\$ 1.016$ billion, $\$ 1.002$ billion and $\$ 947$ million in 1998, 1997 and 1996, respectively.

Corporate research laboratories support research efforts of division and market laboratories. These corporate laboratories also engage in research not directly related to existing 3M product lines. Most major operating divisions have their own laboratories to improve existing products and develop new products. Research staff groups provide specialized services in instrumentation, engineering and process development. 3 M also maintains an organization for technological development not sponsored by other units of the company.
$3 M$ is the owner of many domestic and foreign patents derived primarily from its research activities. 3M's business as a whole is not materially dependent upon any one patent, license or trade secret, or upon any group of related patents, licenses or trade secrets.

The company experienced no significant or unusual problems in the purchase of raw materials during 1998. It is impossible to predict future shortages or the impact such shortages would have.

Executive Officers
Following is a list of the executive officers of 3 M , their ages, present positions, the years elected to their present positions and other positions held within 3 M during the past five years. All of these officers have been employed full time by $3 M$ or a subsidiary of $3 M$ for more than five years. All $3 M$ officers are elected by the Board of Directors at its annual meeting, with vacancies and new positions filled at interim meetings. No family relationships exist among any of the executive officers named, nor is there any arrangement or understanding pursuant to which any person was selected as an officer.

## <TABLE>

Executive Officers (continued)

|  |  |  | Year Elected to Present |  |
| :---: | :---: | :---: | :---: | :---: |
| Name | Age | Present Position | Position | Other Positions Held During 1994-1998 |
| <S> | <C> | <C> | <C> | <C> |
| Livio D. DeSimone | 62 | Chairman of the Board and Chief Executive Officer | 1991 |  |
| J. Marc Adam | 60 | Vice President, Marketing | 1995 | Group Vice President, Medical Products Group, 1991-1995 |
| Giulio Agostini | 63 | Senior Vice President, Finance and Administrative Services | 1993 |  |
| Ronald O. Baukol | 61 | Executive Vice President, International Operations | 1995 | Vice President, Asia Pacific, Canada and Latin America, 1994-1995 Vice President, Asia Pacific, 1991-1994 |
| John W. Benson | 54 | Executive Vice President, Health Care Markets | 1998 | Group Vice President, Industrial <br> Markets Group, 1996-1997 <br> Group Vice President, Abrasive, <br> Chemical and Film Products Group, 1995 <br> Division Vice President, Abrasive <br> Systems Division, 1995 <br> Managing Director, 3M United Kingdom PLC, and Managing Director, 3M Ireland Ltd., 1992-1995 |
| William E. Coyne | 62 | Senior Vice President, Research and Development | 1996 | Vice President, Research and <br> Development, 1994-1995 <br> President and General Manager, <br> 3M Canada, Inc., 1990-1994. |
| M. Kay Grenz | 52 | Vice President, Human Resources | 1998 | ```Staff Vice President, Human Resources Consulting and Resource Services, 1996-1998 Staff Vice President, Human Resources Corporate Services, 1992-1996``` |
| Charles E. Kiester | 62 | Senior Vice President, Engineering, Quality and Manufacturing Services | 1993 |  |
| W. George Meredith | 55 | Executive Vice President, Corporate Services and Supply Chain Management | 1998 | Executive Vice President, Life Sciences <br> Sector and Corporate Services, 1995-1997 <br> Group Vice President, Pharmaceuticals, <br> Dental and Personal Care Products <br> Group, 1994 <br> Group Vice President, Pharmaceuticals, <br> Dental and Disposable Products <br> Group, 1991-1994 |
| Raymond C. Richelsen | 57 | Executive Vice President, Transportation, Safety and Specialty Material Markets | 1998 | Group Vice President, Traffic and Personal Safety Markets Group, 1997 <br> Vice President and General Manager, National Advertising Company and Media Networks, Inc., 1996 |

John J. Ursu

Harold J. Wiens

59 Senior Vice President,
Legal Affairs and General Counsel

52 Executive Vice President, Industrial and Consumer Markets

Group Vice President, Audio and Video Products Group, 1995-1996
Group Vice President, Memory Technologies Group, 1991-1995

Vice President, Legal Affairs and General Counsel, 1993-1996

Group Vice President, Industrial Markets Group, 1998
Executive Vice President, Sumitomo 3M Limited, 1995-1997
Division Vice President, Data Storage Tape Technology Division, 1994-1995 General Manager, Data Storage Tape Technology Division, 1992-1994
</TABLE>

Item 2. Properties.

3M's general offices, corporate research laboratories, some division laboratories and certain manufacturing facilities are located in St. Paul, Minnesota. In the United States, $3 M$ has 30 sales offices and distribution centers in 20 states and operates 68 manufacturing facilities in 24 states. Internationally, 3 M has 210 sales offices and distribution centers. The company operates 86 manufacturing and converting facilities in 41 countries outside the United States.

3M owns substantially all of its physical properties. 3M's physical facilities are highly suitable for the purposes for which they were designed.

Item 3. Legal Proceedings.
The company and certain of its subsidiaries are named as defendants in a number of actions, governmental proceedings and claims, including environmental proceedings and products liability claims involving products now or formerly manufactured and sold by the company. In some actions, the claimants seek damages as well as other relief, which, if granted, would require substantial expenditures. The company has accrued certain liabilities, which represent reasonable estimates of its probable liabilities for these matters. The company also has recorded receivables for the probable amount of insurance recoverable with respect to these matters.

Some of these matters raise difficult and complex factual and legal issues, and are subject to many uncertainties, including, but not limited to, the facts and circumstances of each particular action, the jurisdiction and forum in which each action is proceeding and differences in applicable law. Accordingly, the company is not always able to estimate the amount of its possible future liabilities with respect to such matters.

There can be no certainty that the company may not ultimately incur charges, whether for governmental proceedings and claims, products liability claims, environmental proceedings or other actions, in excess of presently established accruals. While such future charges could have a material adverse impact on the company's net income in the quarterly period in which they are recorded, the company believes that such additional charges, if any, would not have a material adverse effect on the consolidated financial position or annual results of operations of the company. (NOTE: The preceding sentence applies to all legal proceedings involving the company except the breast implant litigation, which is discussed separately in the next section).

## Breast Implant Litigation

As of December 31, 1998, the company had been named as a defendant, often with multiple co-defendants, in 5,863 lawsuits and 121 claims in various courts, all seeking damages for personal injuries from allegedly defective breast implants. These claims and lawsuits purport to represent 21,001 individual claimants. It is not yet certain how many of these lawsuits and claims involve products manufactured and sold by the company, as opposed to other manufacturers, but the company has confirmed that 1,117 of these claimants have 3 M implants. The company entered the business of manufacturing breast implants in 1977 by purchasing McGhan Medical Corporation. In 1984, the company sold the business to a corporation that also was named McGhan Medical Corporation.

The typical claim or lawsuit alleges the individual's breast implants caused one or more of a wide variety of ailments and local complications, including, but not limited to, non-specific autoimmune disease, scleroderma, lupus, rheumatoid arthritis, fibromyalgia, mixed connective tissue disease, Sjogren's Syndrome, dermatomyositis, polymyositis and chronic fatigue.

Plaintiffs in these cases typically seek monetary damages, often in unspecified amounts, and also may seek certain types of equitable relief, including requiring the company to fund the costs associated with removal of the breast implants.

A number of breast implant claims and lawsuits seek to impose liability on the company under various theories for personal injuries allegedly caused by breast implants manufactured and sold by manufacturers other than the company. These manufacturers include, but are not limited to, McGhan Medical Corporation and manufacturers that are no longer in business or that are insolvent, whose breast implants may or may not have been used in conjunction with implants manufactured and sold by the company. These claims raise many difficult and complex factual and legal issues that are subject to many uncertainties, including the facts and circumstances of each particular claim, the jurisdiction in which each suit is brought, and differences in applicable law and insurance coverage.

A number of breast implant lawsuits seek to recover punitive damages. Any punitive damages that may be awarded against the company may or may not be covered by certain insurance policies depending on the language of the insurance policy, applicable law and agreements with insurers.

In addition to individual suits against the company, a class action on behalf of all women with breast implants filed against all manufacturers of such implants has been conditionally certified and is pending in the United States District Court for the Northern District of Alabama (the "Court")(DANTE, ET AL., V. DOW CORNING, ET AL., U.S.D.C., N. Dist., Ala., 92-2589; part of IN RE: SILICONE GEL BREAST IMPLANT PRODUCT LIABILITY LITIGATION, U.S.D.C., N. Dist. Ala., MDL 926, U.S.D.C., N. Dist. Ala., CV 92-P-10000-S; now held in abeyance pending settlement proceedings in the settlement class action LINDSEY, ET AL., V. DOW CORNING CORPORATION, ET AL., U.S.D.C., N. Dist., Ala., CV 94-P-11558-S). Class actions, some of which have been certified, are pending in various state courts, including, among others, Louisiana, Florida and Illinois, and in the British Columbia courts in Canada. The Louisiana state court action (SPITZFADEN, ET AL., v. DOW CORNING CORPORATION, ET AL., Dist. Ct., Parish of Orleans, 92-2589) has been decertified by the trial court. Plaintiffs' writ for an emergency appeal from the decertification has been denied by the Louisiana Supreme Court. A normal appeal remains pending.

The company also has been served with a purported class action brought on behalf of children allegedly exposed to silicone in utero and through breast milk. (FEUER, ET AL., V. MCGHAN, ET AL., U.S.D.C., E. Dist. NY, 93-0146.) The suit names all breast implant manufacturers as defendants and seeks to establish a medical-monitoring fund.

On December 22, 1995, the Court approved a revised class action settlement program for resolution of claims seeking damages for personal injuries from allegedly defective breast implants (the "Revised Settlement Program"). The Revised Settlement Program is a revision of a previous settlement pursuant to a Breast Implant Litigation Settlement Agreement (the "Settlement Agreement") reached on April 8, 1994, and approved by the Court on September 1, 1994.

The Court ordered that, beginning after November 30, 1995, members of the plaintiff class may choose to participate in the Revised Settlement Program or opt out, which would then allow them to proceed with separate products liability actions.

The Revised Settlement Program includes domestic class members with implants manufactured by certain manufacturer defendants, including Baxter International, Bristol Meyers-Squibb, the company and McGhan Medical Corporation. The company's obligations under the Revised Settlement Program are limited to eligible claimants with implants manufactured by the company or its predecessors ("3M implants") or manufactured only by McGhan Medical Corporation after its divestiture from the company on August 3, 1984 ("Post 8/84 McGhan implants"). With respect to claimants with only Post $8 / 84$ McGhan implants (or only Post $8 / 84$ McGhan implants plus certain other manufacturers' implants), the benefits are more limited than for claimants with 3 M implants. Post $8 / 84$ McGhan implant benefits are payable in fixed shares by the
company, Union Carbide Corporation and McGhan Medical Corporation. McGhan Medical Corporation has defaulted on its fixed share obligation (which does not affect $3 \mathrm{M}^{\prime}$ s obligation to pay its share) and has a request for a mandatory class action recently approved by the court.

In general, the amounts payable to individual current claimants (as defined in the Court's order) under the Revised Settlement Program, and the company's obligations to make those payments, are not affected by the number of class members who have elected to opt out of the Revised Settlement Program or the number of class members making claims under the Revised Settlement Program. In addition to certain miscellaneous benefits, the Revised Settlement Program provides for two compensation options for current claimants with 3 M implants.

Under the first option, denominated as Fixed Amount Benefits, current claimants with 3 M implants who satisfy disease criteria established in the prior Settlement Agreement will receive amounts ranging from $\$ 5,000$ to $\$ 100,000$, depending on disease severity or disability level; whether the claimant can establish that her implants have ruptured; and whether the claimant also has had implants manufactured by Dow Corning. Under the second option, denominated as Long-Term Benefits, current claimants with $3 M$ implants who satisfy more restrictive disease and severity criteria specified under the Revised Settlement Program can receive benefits ranging from $\$ 37,500$ to $\$ 250,000$.

In addition, current claimants with 3 M implants are eligible for (a) a one-time payment of $\$ 3,000$ upon removal of 3 M implants during the course of the class settlement, and (b) an advance payment of $\$ 5,000$ against the above referenced benefits upon proof of having 3 M implants and upon waiving or not timely exercising the right to opt out of the Revised Settlement Program. Current claimants with only Post 8/84 McGhan implants (or only Post $8 / 84$ McGhan implants plus certain other manufacturers' implants) are eligible only for benefits ranging from $\$ 10,000$ to $\$ 50,000$.

Eligible participants with 3 M implants who did not file current claims but are able to satisfy the more restrictive disease and severity criteria during an ongoing period of 15 years will be eligible for the Long-Term Benefits, subject to certain funding limitations. Such participants also will be eligible for an advance payment of $\$ 1,000$ upon proof of having 3 M implants and upon waiving or not timely exercising the right to opt out of the Revised Settlement Program or, as an elective option expiring on June 15, 1999, a payment of $\$ 3,500$ in full settlement of all breast implant claims including any claim for Long-Term Benefits under the Revised Settlement Program. Benefit levels for eligible participants who are not current claimants and
have only Post 8/84 McGhan implants (or only Post 8/84 McGhan implants plus certain other manufacturers' implants) will range from $\$ 10,000$ to $\$ 50,000$.

On June 10, 1998 the Court approved the terms of a settlement program offered by Baxter International, Bristol Meyers-Squibb and the company to eligible foreign implant recipients (the "Foreign Settlement Program"). Notices and claim forms were mailed on June 15, 1998. Benefits to eligible foreign claimants range from $\$ 3,500$ to $\$ 50,000$.

As of the date of this filing, the company believes that approximately $90 \%$ of the registrants, including those claimants who filed current claims, have elected to participate in the Revised Settlement Program. It is still unknown as to what disease criteria all claimants have satisfied, and what options they have chosen. As a result, the total amount and timing of the company's prospective payments under the Revised Settlement Program cannot be determined with precision at this time. As of December 31, 1998, the company has paid $\$ 232$ million into the court-administered fund as a reserve against costs of claims payable by the company under the Revised Settlement Program (including a $\$ 5$ million administrative assessment). Additional payments will be made as necessary. Payments to date have been consistent with the company's estimates of the total liability for these claims.

In the first quarter of 1994, the company took a pre-tax charge of $\$ 35$ million ( $\$ 22$ million after tax) in recognition of its then best estimate of its probable liabilities and associated expenses, net of the probable amount of insurance recoverable from its carriers. In the second quarter of 1998, the company increased its estimate of the minimum probable liabilities and associated expenses to approximately \$1.1 billion, with an offsetting increase in the probable amount of insurance recoveries. This amount represents the company's best estimate of the minimum amount to cover the cost and expense of the Revised Settlement Program and the cost and expense of resolving opt-out claims and recovering insurance proceeds. After subtracting payments of $\$ 963$ million as of December 31,1998 , for defense and
other costs and settlements with litigants and claimants, the company had accrued liabilities of $\$ 137$ million.

The company has substantial primary and excess products liability occurrence insurance coverage and claims-made products liability insurance coverage, which it believes provide coverage for substantially all of its current exposure for breast implant claims and defense costs. Most insurers have alleged reservations of rights to deny all or part of the coverage for differing reasons, including each insurer's obligations in relation to the other insurers (i.e. allocation) and which claims trigger both the various occurrence and claims-made insurance policies. Some insurers have resolved and paid, or committed to, their policy obligations. The company believes the failure of many insurers to voluntarily perform as promised subjects them to the company's claims for excess liability and damages for breach of the insurers' obligation of good faith.

On September 22, 1994, three excess coverage occurrence insurers initiated in the courts of the State of Minnesota a declaratory judgment action against the company and numerous insurance carriers seeking adjudication of certain coverage issues and allocation among insurers. On December 9, 1994, the company initiated an action against its occurrence insurers in the Texas State Court in and for Harrison County, seeking a determination of responsibility among the company's various occurrence insurers with applicable coverages. The state of Texas has the most implant claims. This action has since been removed to the U.S. District Court, Eastern District of Texas, and stayed pending resolution of the litigation in the Minnesota courts.

The insurers that are parties to these actions generally acknowledge that they issued products liability insurance to the company and that breast implant claims are products liability claims. The trial in Minnesota to resolve the company's insurance coverage and the financial responsibility of occurrence insurers for breast implant claims and defense costs began on June 4, 1996, and is continuing in phases. The most recent phase was completed on January 20, 1999. The next phase is scheduled to begin on February 16, 1999.

In mid-October 1995, the occurrence insurers that are parties to the litigation in Minnesota filed more than 30 motions for summary judgment or partial summary judgment. The insurers, through these motions, attempted to shift all or a portion of the responsibility for those claims the company believes fall within the period of occurrencebased coverage (before 1986) into the period of claims-made coverage (from and after 1986). The trial court denied the insurers' motions, ruling that the key issues of trigger and allocation raised in these motions would be resolved at trial. In the trial's first phase in 1996, the court granted $3 M$ partial declaratory judgment on the question of when insurance coverage is "triggered." The court also granted the insurers' motion for partial declaratory judgment on the question of the allocation method to be applied in the case. In July 1997, the trial court ruled further on the trigger issue and on the general allocation method. That ruling was consistent with and further supported the company's opinion as stated in the following paragraph. In November 1997, upon reconsideration, the court reversed a portion of its July ruling and reinstated a portion of its previous ruling. The company believes that conflicting rulings now exist that need to be clarified by the court and reconciled with applicable law. Motions to clarify the allocation methodology of triggered policies under these rulings were filed and have been ruled upon by the court. While the Court clarified certain aspects of these rulings it also conducted an additional evidentiary hearing on the issue. The court is expected to rule on this issue by February 16, 1999.

The company believes it ultimately will prevail in this insurance litigation. The company's belief is based on an analysis of its insurance policies; court decisions on these and similar issues; reimbursement by insurers for these types of claims; and consultation with outside counsel who are experts in insurance coverage matters. If, however, the occurrence insurers ultimately prevail in this insurance litigation, the company could be effectively deprived of significant and potentially material insurance coverage for breast implant claims. (See discussion of the accrued receivables for insurance recoveries below.)

As of December 31, 1998, the company had accrued receivables for insurance recoveries of $\$ 767$ million, substantially all of which is contested by the insurance carriers. Various factors could affect the timing and amount of proceeds to be received under the company's various insurance policies, including (i) the timing of payments made in settlement of claims; (ii) the outcome of occurrence insurance litigation in the courts of Minnesota (as discussed above) and Texas; (iii) potential arbitration with claims-made insurers; (iv) delays in
payment by insurers; and (v) the extent to which insurers may become insolvent in the future. There can be no absolute assurance that the company will collect all amounts accrued as being probable of recovery from its insurers.

The company's current estimate of the probable liabilities, associated expenses and probable insurance recoveries related to the breast implant claims is based on the facts and circumstances existing at this time. New developments may occur that could affect the company's estimates of probable liabilities (including associated expenses) and the probable amount of insurance recoveries. These developments include, but are not limited to,
(i) the ultimate Fixed Amount Benefit
distribution to claimants in the Revised Settlement Program; (ii) the success of and costs to the company in defending opt-out claims, including claims involving breast implants not manufactured or sold by the company; (iii) the outcome of the occurrence insurance litigation in the courts of Minnesota and Texas; and (iv) the outcome of potential arbitration with claims-made insurers.

The company cannot determine the impact of these potential developments on the current estimate of probable liabilities (including associated expenses) and the probable amount of insurance recoveries. Accordingly, the company is not able to estimate its possible future liabilities and recoveries beyond the current estimates of probable amounts. As new developments occur, these estimates may be revised, or additional charges may be necessary to reflect the impact of these developments on the costs to the company of resolving breast implant litigation, claims and insurance recoveries. Such revisions or additional future charges could have a material adverse impact on the company's net income in the quarterly period in which they are recorded. Although the company considers it unlikely, such revisions or additional future charges could also have a material adverse effect on the consolidated financial position or annual results of operations of the company.

The company conducts ongoing reviews, assisted by outside counsel, to determine the adequacy and extent of insurance coverage provided by its occurrence and claims-made insurers. The company believes, based on these ongoing reviews and the bases described in the fourth preceding paragraph, it is probable that the collectible coverage provided by its applicable insurance policies is sufficient to cover substantially all of its current exposure for breast implant claims and defense costs. Based on the availability of this insurance coverage, the company believes that its uninsured financial exposure has not materially changed since the first quarter of 1994. Therefore, no recognition of additional charges has been made.

Environmental Matters
The company also is involved in a number of environmental proceedings by governmental agencies and by private parties asserting liability for past waste disposal and other alleged environmental damage. The company conducts ongoing investigations, assisted by environmental consultants, to determine accruals for the probable, estimable costs of remediation. The remediation accruals are reviewed each quarter and changes are made as appropriate.

On September 3, 1998, the United States Environmental Protection Agency (EPA) instituted a civil administrative proceeding against the company by filing a complaint alleging violations of the hazardous waste regulations at the company's Cordova, Ill. facility under the Resource Conservation and Recovery Act (RCRA). The complaint sought penalties of $\$ 287,600$. In January 1999 , the Company and the EPA agreed to the terms of a Consent Agreement and Consent Order, including the payment of a penalty in the amount of $\$ 143,800$.

Item 4. Submission of Matters to a Vote of Security Holders.
None in the quarter ended December 31, 1998.
Part II

Item 5. Market Price of 3 M's Common Stock and Related Security Holder Matters.

At January 31, 1999, there were 138,066 shareholders of record.
3M's stock is listed on the New York, Pacific, Chicago and Swiss stock exchanges.

Stock price comparisons are provided in the Quarterly Data section in the Notes to Consolidated Financial Statements.

<TABLE>
Item 6. Selected Financial Data.
(Dollars in millions, except per-share amounts)
<CAPTION>
\begin{tabular}{|c|c|c|c|c|c|}
\hline Year Ended December 31: & 1998 & 1997 & 1996 & 1995 & 1994 \\
\hline <S> & <C> & <C> & <C> & <C> & <C> \\
\hline Net Sales & \$15,021 & \$15,070 & \$14,236 & \$13,460 & \$12,148 \\
\hline Income from Continuing Operations & . 1,213* & 2,121* & 1,516 & 1,306** & 1,207 \\
\hline \multicolumn{6}{|l|}{Per Share of Common Stock:} \\
\hline Continuing Operations - Basic. & 3.01* & 5.14* & 3.63 & 3.11** & 2.85 \\
\hline Continuing Operations - Diluted. & . 2.97* & 5.06* & 3.59 & 3.09** & 2.84 \\
\hline Cash Dividends Declared and Paid.. & . 2.20 & \$ 2.12 & \$ 1.92 & \$ 1.88 & \$ 1.76 \\
\hline \multicolumn{6}{|l|}{At December 31:} \\
\hline Total Assets \# & \$14,153 & \$13,238 & \$13,364 & \$14,183 & \$13,068 \\
\hline Long-Term Debt (excluding portion due within one year).................... & \[
1,614
\] & 1,015 & 851 & 1,203 & 1,031 \\
\hline
\end{tabular}
-
<F1>
* As discussed in the Notes to Consolidated Financial Statements, 1998 includes a restructuring charge of \(\$ 493\) million ( \(\$ 313\) million after tax, or \(\$ .77\) per diluted share). 1997 includes a gain on the sale of National Advertising Company of \(\$ 803\) million ( \(\$ 495\) million after tax, or \(\$ 1.18\) per diluted share).
<F2>
\# Periods prior to 1996 include net assets of discontinued operations. <F3>
** 1995 includes a restructuring charge of \(\$ 79\) million (\$52 million after tax, or \(\$ .12\) per diluted share).
</FN>
</TABLE>
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Operating Results
Sales in 1998 totaled $\$ 15.021$ billion, compared with $\$ 15.070$ billion in 1997. This followed increases of 5.9 percent in 1997 and 5.8 percent in 1996. Sales in all three years were reduced by the stronger U.S. dollar. In 1998, currency translation reduced sales by more than $\$ 500$ million, or 3 percent.

In the United States, sales totaled $\$ 7.231$ billion, similar to 1997. Adjusting for the 1997 sale of the outdoor advertising business, sales rose about 2 percent. The company posted good growth in consumer, office, pharmaceuticals and automotive products businesses, but softness in electronics, industrial and transportation safety markets affected overall growth.

Internationally, sales totaled $\$ 7.790$ billion, also similar to 1997. Flat sales in 1998 reflected negative currency and a difficult economic backdrop in Japan and many developing countries. International volume increased about 4 percent and selling prices were up about 2 percent. The stronger U.S. dollar reduced international sales by about 6 percent.

<TABLE>
Components of Sales Change
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline & \multicolumn{3}{|c|}{1998} & \multicolumn{3}{|c|}{1997} \\
\hline & U.S. & Intl. & Worldwide & U.S. & Intl. & Worldwide \\
\hline <S> & <C> & <C> & <C> & <C> & <C> & <C> \\
\hline Volume & 0\% & 4\% & 2\% & 9\% & 13\% & 11\% \\
\hline Price & 0 & 2 & 1 & 0 & (1) & 0 \\
\hline Translation & - & (6) & (3) & - & (9) & (5) \\
\hline Total & 0\% & 0\% & 0\% & 9\% & \(3 \%\) & 6\% \\
\hline \multicolumn{7}{|l|}{</TABLE>} \\
\hline In 1998, 3M & record & a & 93 million & (\$313 & million & after tax) \\
\hline restructuring & charge & Deta & ls of the & restruc & turing & charge are \\
\hline
\end{tabular} discussed in the Notes to Consolidated Financial Statements.

Cost of goods sold, excluding the inventory portion of the restructuring charge, was 57.9 percent of sales, up nine-tenths of a percentage point from 1997. In both 1998 and 1997, gross margins benefited from slightly lower raw material costs, but were negatively affected by the stronger U.S. dollar. Cost of goods sold includes manufacturing, research and development, and engineering expenses.

Selling, general and administrative expenses were 25.2 percent of
sales, down from 25.3 percent in 1997 and 25.6 percent in 1996. Continued tight expense controls had a positive effect on this spending.
<TABLE>
<CAPTION>
(Percent of sales) 199819971996
<S> <C> <C> <C>
Cost of goods sold 57.9* \(57.0 \quad 56.9\)
\(\begin{array}{lllll}\text { Selling, general and administrative expenses } & 25.2 & 25.3 & 25.6\end{array}\)
<EN>
<F1>
*Excludes restructuring charge
</FN>
</TABLE>
The operating income discussion that follows excludes the restructuring charge. Operating income totaled \(\$ 2.532\) billion, down 5.4 percent from 1997. Operating income was 16.9 percent of sales, down from 17.7 percent in 1997 and 17.5 percent in 1996. During 1998, economic contractions in many international markets where 3 M has a strong presence, and softness in a few key U.S. markets negatively affected operating income margins. The company estimates that currency effects reduced operating income by \(\$ 237\) million in 1998 and \$189 million in 1997.

In the United States, operating income decreased 8 percent and profit margins were down 1.4 percentage points. In 1997, operating income increased 15 percent and profit margins improved by nine-tenths of a percentage point.

Internationally, operating income decreased about 3 percent and profit margins declined by four-tenths of a percentage point. Currency effects reduced international profits by 17 percent and profit margins by 1.8 percentage points. In 1997, operating income rose about 1 percent and profit margins declined by three-tenths of a percentage point. Currency effects reduced international profits in 1997 by 15 percent.

\section*{<TABLE>}
<CAPTION>
\begin{tabular}{llll} 
(Percent of sales) & 1998 & 1997 & 1996 \\
<S \(>\) & \(<\mathrm{C}\rangle\) & \(<\mathrm{C}\rangle\) & \(<\mathrm{C}\rangle\) \\
Operating income & \(16.9 *\) & 17.7 & 17.5
\end{tabular}

Operating income
<FN>
<F1>
* Excludes restructuring charge
</EN>
</TABLE>
Interest expense was \$139 million, compared with $\$ 94$ million in 1997 and $\$ 79$ million in 1996. The 1998 increase reflects the company's strategy to lower its cost of capital by moderately increasing financial leverage. The 1997 increase was due to several factors, including slightly higher debt balances and higher interest rate resets on certain long-term floating-rate issues.

Investment and other income was $\$ 42$ million, compared with $\$ 56$ million in 1997 and $\$ 67$ million in 1996. Lower cash and securities balances resulted in less interest income in both 1998 and 1997.

In 1997, the company realized a gain of $\$ 803$ million ( $\$ 495$ million after tax) on the sale of National Advertising Company. In 1998, a \$10 million gain was recorded to finalize the accounting for this sale, which is discussed in the Notes to Consolidated Financial Statements.

The impact of the 1998 restructuring charge and the 1997 gain on divestiture on 3 M's consolidated statement of income and tax rate follows.

<TABLE>
Supplemental Consolidated Statement of Income Information
(Millions, except per-share amounts)
<CAPTION>
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[t]{5}{*}{Years ended} & \multicolumn{3}{|c|}{December 31, 1998} & \multicolumn{2}{|r|}{December 3} & 31, 1997 \\
\hline & Excluding & & & Excluding & & \\
\hline & Restruc- & Restruc- & & Gain on & Gain on & \\
\hline & turing & turing & Reported & Dives- & Dives- & Reported \\
\hline & Charge & Charge & Total & titure & titure & Total \\
\hline <C> & <S> & <S> & <S> & <S> & <S> & <S> \\
\hline Operating income & \$2,532 & \$ (493) & \$ 2,039 & \$ 2,675 & \$ -- & \$ 2,675 \\
\hline
\end{tabular}

Other income and
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline expense & 87 & & -- & & 87 & & 38 & & (803) & & (765) \\
\hline ```
Income before income
    taxes, minority
    interest and
    extraordinary loss
``` & \$2,445 & \$ & (493) & \$ & 1,952 & \$ & 2,637 & \$ & 803 & \$ & 3,440 \\
\hline Provision for income taxes & 865 & & (180) & & 685 & & 933 & & 308 & & 1,241 \\
\hline Effective tax rate & 35.4\% & & 36.5\% & & 35.1\% & & 35.4\% & & 38.4\% & & 36.1\% \\
\hline Minority interest & 54 & & -- & & 54 & & 78 & & -- & & 78 \\
\hline Income before extraordinary loss & \$1,526 & & \$ (313) & \$ & 1,213 & \$ & 1,626 & \$ & 495 & \$ & 2,121 \\
\hline Per share - diluted </TABLE> & \$ 3.74 & & \$(0.77) & \$ & 2.97 & \$ & 3.88 & \$ & 1.18 & \$ & 5.06 \\
\hline
\end{tabular}

3M's effective tax rate was 35.1 percent in 1998 , compared with 36.1 percent in 1997 and 35.8 percent in 1996. Excluding the 1998 restructuring charge and the 1997 gain on divestiture, the worldwide effective income tax rate in both 1998 and 1997 was 35.4 percent. The 1998 restructuring charge was taxed at a rate of 36.5 percent. The 1997 gain on divestiture was taxed entirely in the United States at a rate of 38.4 percent.

Minority interest was \$54 million, compared with \$78 million in 1997 and \(\$ 77\) million in 1996. Minority interest primarily relates to 3M's partial ownership of Sumitomo 3 M Limited and Dyneon LLC. These companies' results are fully consolidated in 3M's financial statements, and then partially eliminated on the minority interest line to reflect 3 M's net position in these companies. The decrease in 1998 minority interest was driven by lower profits in these companies.

The company refinanced debt relating to its Employee Stock Ownership Plan in the fourth quarter of 1998, replacing the debt with a new bond carrying a significantly lower interest rate. This resulted in a \(\$ 38\) million after-tax charge, or \(\$ 0.09\) per diluted share. This is reported as an extraordinary loss from early extinguishment of debt.

Net income totaled \(\$ 1.175\) billion, or \(\$ 2.88\) per diluted share, compared with \(\$ 2.121\) billion, or \(\$ 5.06\) per diluted share, in 1997 . Excluding the 1998 restructuring charge, the 1998 extraordinary loss and the 1997 gain on divestiture, net income totaled \(\$ 1.526\) billion, or \(\$ 3.74\) per diluted share, compared with \(\$ 1.626\) billion, or \(\$ 3.88\) per diluted share, in 1997. Per-share income was down 3.6 percent. In 1996, income from continuing operations totaled \(\$ 1.516\) billion, or \(\$ 3.59\) per diluted share.

In 1998, 1997 and 1996, changes in the value of the U.S. dollar reduced net income by an estimated \(\$ 141\) million, \(\$ 112\) million and \(\$ 65\) million, or 35 cents per share, 27 cents per share and 15 cents per share, respectively. These estimates include the effect of translating profits from local currencies into U.S. dollars; the impact of currency fluctuations on the value of goods transferred between \(3 M\) operations in the United States and abroad; and transaction gains and losses in countries not considered to be highly inflationary.

Economic profit totaled \(\$ 604\) million, a 16 percent decrease from 1997. Return on invested capital was 15.9 percent, a decrease of 2.1 percentage points from 1997. Both economic profit and return on invested capital exclude the impact of the restructuring. Economic profit equals after-tax operating income, less a charge for operating capital employed in \(3 \mathrm{M}^{\prime}\) s businesses. Return on invested capital is after-tax operating income divided by average operating capital.

At December 31, 1998, employment totaled 73,564 people, a decrease of 2,075 from year-end 1997. Sales per employee in local currencies increased about 3 percent in 1998. During the preceding four years, 3M's productivity increased an average of about 9 percent a year.

Performance by Business Segment
Financial information and other disclosures relating to 3M's three business segments are provided in this Form 10-K, Item 1, Business Segments, and in the Notes to Consolidated Financial Statements. The discussion of segment results excludes the effect of the restructuring charge as this charge was not allocated to the individual segments.

\section*{Industrial and Consumer Markets:}

This segment represented about 51 percent of consolidated sales in 1998. Sales totaled \(\$ 7.714\) billion, down 0.8 percent from 1997. Operating income decreased 6.3 percent to \(\$ 1.285\) billion. Operating income was 16.7 percent of sales, compared with 17.6 percent in 1997. Results in 1998 were negatively impacted by the strong U.S. dollar,
the Asian economic crisis, softness in the electronics industry and slowing in the manufacturing sector of the U.S. economy.

This segment develops, manufactures and markets innovative, high-value products for industrial, consumer and office customers worldwide. Key industrial products include tapes, adhesives, abrasives, resins, electrical connectors, and flexible circuits. Many of the market's new product developments serve fast-growing industries, including semiconductors, electronics, personal computers and energy management. Key consumer and office supply products include tapes, notes, scouring pads and sponges, energy-saving products and floor matting.

Transportation, Safety and Specialty Material Markets:
This segment represented nearly 28 percent of consolidated sales in 1998. Sales totaled \(\$ 4.125\) billion, down 1.8 percent from 1997. Operating income decreased 6.9 percent to \(\$ 753\) million. Operating income was 18.2 percent of sales, compared with 19.2 percent in 1997. Sales and operating income in 1998 were affected by the stronger U.S. dollar, the Asian economic crisis, delays in the passage of new federal legislation for highway funding and softness in the electronics industry.

This market produces reflective materials for traffic safety, respirators for worker protection, equipment and materials for largeformat graphics, and specialty materials. On August 15, 1997, the company sold National Advertising Company, an outdoor and mall advertising subsidiary that was part of this market. National Advertising Company had annual sales of about \(\$ 200\) million and operating income of about \(\$ 35\) million. The gain on this sale was not reflected in the segment's operating income results.

Health Care Markets:
This segment represented nearly 21 percent of consolidated sales in 1998. Sales totaled \(\$ 3.076\) billion, up 2.4 percent from 1997. Operating income increased 9.1 percent to \(\$ 600\) million. Operating income was 19.5 percent of sales, up from 18.3 percent in 1997, despite negative currency effects.

This market's major product categories include skin health, medical/surgical supplies and devices, infection control, cardiovascular systems, health care information systems, pharmaceuticals, drug-delivery systems, dental products, and closures for disposable diapers.

Performance by Geographic Area
Financial information relating to 3 M operations in various geographic areas is provided in the Notes to Consolidated Financial Statements. The discussion by geographic area excludes the effect of the restructuring charge as this charge was not allocated to individual geographic area.

United States (48\% of consolidated sales)
In the United States, adjusted for the 1997 sale of the outdoor advertising business, sales were up about 2 percent. Operating income was 16.4 percent of sales, down from 17.8 percent in 1997. The company posted good growth in consumer, office, pharmaceuticals and automotive products businesses, but softness in electronics, industrial and transportation safety markets affected overall sales and profits.

Europe and Middle East ( \(26 \%\) of consolidated sales)
Sales in Europe and the Middle East totaled \$3.85 billion, up 6 percent from 1997. Local currency sales increased about 8 percent, while currency translation reduced sales by about 2 percent. Operating income was 13.4 percent of sales, up from 11.8 percent in 1997. This margin improvement was driven by good local-currency sales, together with streamlining of operations.

In Western Europe, 3M's unit volume grew about 6 percent, led by Pacing Plus programs and a market-focused approach to customers. In Eastern Europe, where the company has traditionally posted very strong double-digit volume gains, unit sales rose about 11 percent, affected by the contagion from the turmoil in Russia.

Asia Pacific (16\% of consolidated sales)
Unit sales in the Asia Pacific area decreased about 1 percent in 1998. Selling prices increased more than 2 percent, while currency translation reduced sales by about 11 percent. Operating income was 21.2 percent of sales, down from 23.2 percent in 1997.

Recession in Japan, economic turmoil in many Asian nations and depreciating currencies throughout the area affected 3M's Asia Pacific sales and profits. In Japan, home of 3M's largest international company, volume increased about 2 percent. Unit sales in Asia,

Latin America, Canada and Africa (10\% of consolidated sales)
In Latin America, unit sales increased 6 percent. Slowing economies throughout this region restrained 3M growth. In Canada, unit sales increased about 9 percent. In Africa, volume decreased about 1 percent. Operating results in Africa were impacted by soft economies and weak currencies. Operating income for Latin America, Canada and Africa was 22.7 percent of sales, down from 23.5 percent in 1997.

Financial Position
3M's financial condition remained strong in 1998, and working capital remained well-controlled. The company's key inventory index was 3.4 months, down about 10 percent from year-end 1997. The year-end accounts receivable index was 61 days, up one day from year-end 1997. The current ratio was 1.4, down from 1.5 at year-end 1997.

Total debt was \(\$ 3.106\) billion, up from \(\$ 2.514\) billion at year-end 1997. Total debt was 34 percent of total capital, compared with 30 percent in 1997, reflecting the planned moderate increase in leverage during 1998. Of debt outstanding at the end of 1998, \(\$ 385\) million represented a guarantee of debt of the \(3 M\) Employee Stock Ownership Plan.

Various assets and liabilities, including cash and short-term debt, can fluctuate significantly on a month-to-month basis depending on short-term liquidity needs.

Legal proceedings are discussed in the Legal Proceedings section in Part I, Item 3, of this Form 10-K. There can be no certainty that the company may not ultimately incur charges, whether for governmental proceedings and claims, products liability claims, environmental proceedings or other actions, in excess of presently established accruals. While such future charges could have a material adverse impact on the company's net income in the quarterly period in which they are recorded, the company believes that such additional charges, if any, would not have a material adverse effect on the consolidated financial position or annual results of operations of the company. (NOTE: The preceding sentence applies to all legal proceedings involving the company except the
breast implant litigation. See discussion of breast implant litigation in Legal Proceedings, Part I, Item 3.)

Financial Instruments
The company enters into contractual arrangements (derivatives) in the ordinary course of business to manage foreign currency exposure, interest rate risks and commodity price risks. A financial risk management committee, composed of senior management, provides oversight for risk management and derivative activities. This committee determines the company's financial risk policies and objectives, and provides guidelines for derivative instrument utilization. This committee also establishes procedures for control and valuation, risk analysis, counterparty credit approval, and ongoing monitoring and reporting.

The company enters into forward contracts and swaps to hedge certain intercompany financing transactions, and purchases options to hedge against the effect of exchange rate fluctuations on cash flows denominated in foreign currencies.

The company manages interest expense using a mix of fixed, floating and variable rate debt. To help manage borrowing costs, the company may enter into interest rate swaps. Under these arrangements, the company agrees to exchange, at specified intervals, the difference between fixed and floating interest amounts calculated by reference to an agreed-upon notional principal amount.

The company manages commodity price risks through negotiated supply contracts, price protection swaps, and forward physical contracts.

A variance/co-variance value-at-risk model was used to test the company's exposure to changes in currency and interest rates. A historical value-at-risk model was used to assess commodity risks. All models used a 95 percent confidence level over a one month time horizon. The JP Morgan Riskmetrics dataset was used for the variance/co-variance analysis. Five years of historical data were used for the commodity risk analysis. Both models assessed the risk of loss in market value of outstanding financial instruments and derivatives. Based on a value-at-risk analysis of the company's foreign exchange, interest rate and commodity derivative instruments outstanding at December 31, 1998, probable near-term changes in exchange rates, interest rates or commodity prices would not
materially affect the company's consolidated financial position, results of operations or cash flows.

Liquidity
During 1998, cash flows provided by operating activities of continuing operations totaled \(\$ 2.374\) billion, up from \(\$ 1.818\) billion in 1997 . In 1997, operating cash flows were negatively impacted by \(\$ 308\) million of income taxes paid relating to the gain on the sale of National Advertising Company. Operating cash flows in 1998 were affected by net outflows of \(\$ 255\) million relating to implant litigation, compared with net inflows of \(\$ 35\) million in 1997. In both 1998 and 1997, cash flows benefited from effective asset management.

Capital spending totaled \(\$ 1.430\) billion, an increase of about 2 percent from 1997. This followed increases of 27 percent in 1997 and 2 percent in 1996. These investments are helping to meet global demand for new products and to increase manufacturing efficiency.
<PAGE 20>
Cash used for acquisitions and investments totaled \(\$ 265\) million, \(\$ 40\) million and \(\$ 263\) million in 1998, 1997 and 1996, respectively. The higher amount in 1998 primarily was due to acquisitions in the occupational health and telecommunication areas. The higher amount in 1996 was primarily due to acquisitions in the health care field, and the purchase of the minority interest in 3 M Korea.

In 1997, cash proceeds from the sale of National Advertising Company totaled \(\$ 1\) billion, with net after-tax cash proceeds of nearly \(\$ 700\) million. Cash proceeds from other divestitures and investments totaled \(\$ 98\) million, \(\$ 51\) million and \(\$ 62\) million in 1998, 1997 and 1996, respectively.

Stockholder dividends increased 3.8 percent to \(\$ 2.20\) a share. Cash dividend payments totaled \(\$ 887\) million. \(3 M\) has paid dividends since 1916. In February 1999, the Board of Directors increased the quarterly dividend on \(3 M\) common stock to 56 cents a share, equivalent to an annual dividend of \(\$ 2.24\) a share. This marks the 41st consecutive year of dividend increases.

Repurchases of 3 M common stock totaled \(\$ 618\) million in 1998 , compared with \(\$ 1.693\) billion in 1997 and \(\$ 532\) million in 1996. The combination of a reduction in average shares outstanding and higher interest expense resulted in a net benefit to earnings of \(\$ .03\) per diluted share in 1998. In 1997, net proceeds from the National Advertising Company divestiture were used primarily to repurchase shares. Repurchases were made to support employee stock purchase plans and for other corporate purposes.

In February 1999, the Board of Directors authorized the repurchase of up to 12 million of the company's shares. This share repurchase authorization extends through December 31, 1999. Under a preceding authorization, the company purchased about 9.8 million shares.

The company's strong credit rating provides ready and ample access to funds in global capital markets. At year-end 1998, the company had available short-term lines of credit totaling about \(\$ 670\) million.

Timing differences between payment of implant liabilities and receipt of related insurance recoveries could affect future cash flows. This is discussed in Part I, Item 3, Legal Proceedings, of this Form \(10-\mathrm{K}\).

Future Outlook
The company encountered a difficult set of challenges in 1998 - large negative currency effects, economic contractions in many international markets, and softness in a few key U.S. markets. To improve productivity and reduce costs, the company is exiting certain product lines, consolidating manufacturing operations, and eliminating lowervalue activities in corporate service functions. Relating to these actions, the company recorded a restructuring charge in 1998. This charge is discussed in the Notes to Consolidated Financial Statements.

In addition, the company is divesting certain businesses, primarily in its Health Care segment, as part of its restructuring plan. These businesses have annual revenues of about \(\$ 200\) million and marginal operating income. Potential gains from divesting these businesses with a decreasing strategic fit are not expected to be material and will be recognized when realized as part of selling, general and administrative expenses.

The company experienced a net reduction of about 2,200 positions in the second half of 1998, with a total net reduction of about 4,500 positions expected by December 31, 1999. Each business segment and geographic area of the company will be affected by this restructuring
about 1,500 positions in the United States, 1,500 in Europe, 700 in the Asia Pacific area, and 800 in the company's Latin America, Africa, and Canada geographic area.

When fully implemented by the end of 1999, the restructuring plan is expected to provide annual pre-tax savings of about \(\$ 250\) million. The company anticipates implementation costs associated with this restructuring plan to be about \(\$ 35\) million in 1999. These costs, not included in the restructuring charge, include expenses for relocating employees, inventory and equipment; unfavorable overhead variances; and other expenses. If the company does not generate adequate sales growth, normal increases in salaries and wages and additional depreciation from capital expenditures will create offsets to the annual savings.
\(3 M\) expects sales growth in 1999 of 4 to 5 percent in local currencies. Sales are expected to grow 3 to 4 percent in the United States. Internationally, the company is expecting to increase sales in local currencies 5 to 6 percent. Volume growth is anticipated to be about 5 percent in Europe, 5 percent in the Asia Pacific area and 3 to 4 percent in Japan. In Asia outside Japan, volume growth is expected to resume in 1999. In Latin America, it is difficult to predict ramifications of the Brazilian currency devaluation, and therefore the company is not expecting any contribution to earnings growth from Latin America.

The company is not able to project what the consequences will be from the turmoil in various economies around the world. The company is monitoring business conditions closely and is prepared to make adjustments in costs, pricing and investments as appropriate. The company expects to resume earnings growth in 1999, driven by volume growth, new products, greater productivity gains and tight expense controls.

Based on exchange rates as of February 10, 1999, the company believes that currency effects will have a minimal impact on sales and earnings in 1999.

Capital spending totaled \(\$ 1.430\) billion in 1998 , and is expected to be about 10 percent lower in 1999. The company does not expect a significant change in its tax rate in 1999.

Year 2000 Readiness
The Year 2000 issue is the result of using only the last two digits to indicate the year in computer hardware and software programs and embedded technology such as micro-controllers. As a result, these programs do not properly recognize a year that begins with "20" instead of the familiar "19." If uncorrected, such programs will be unable to interpret dates beyond the year 1999, which could cause computer system failure or other errors disrupting normal business operations.

The company recognizes the importance of readiness for the Year 2000 and has given it high priority. In November 1996, the company created a corporate-wide Year 2000 project team representing all company business and staff units. The team's objective is to ensure an uninterrupted transition to the year 2000 by assessing, testing and modifying IT and non-IT systems (defined below) and date-sensitive company products so that (a) they will perform as intended, regardless of the date (before, during and after December 31, 1999), and (b) dates (before, during and after December 31, 1999 and including February 29, 2000) can be processed with expected results ("Year 2000 Compliant"). The scope of the Year 2000 compliance effort includes (i) information technology ("IT") such as software and hardware; (ii) nonIT systems or embedded technology such as micro-controllers contained in various manufacturing and laboratory equipment; environmental and safety systems, facilities and
utilities, (iii) date-sensitive company products; and (iv) the readiness of key third parties, including suppliers and customers, and the electronic data interchange (EDI) with those key third parties.

The Year 2000 project team has taken an inventory of IT and non-IT systems and date-sensitive company products that might malfunction or fail as a result of using only the last two digits to indicate the year. The project teams then categorized the potential date component failures into three categories: "Vital" (stops the business operation and no short-term solution is available); "Critical" (inconvenient to the business operation and a short-term solution is available); and
"Marginal" (inconsequential to the business operation).
IT Systems - The company is using both internal and external resources to remediate and test millions of lines of application software code. As of December 31, 1998, approximately 95 percent of the core IT systems (e.g., general ledger, payroll, procurement and order management) located in the United States that are deemed "Vital" or "Critical" are Year 2000 Compliant. As of December 31, 1998, approximately 95 percent of the IT systems in subsidiaries outside the United States that are deemed "Vital" or "Critical" are Year 2000 Compliant.

Non-IT Systems - The company has more than 100 manufacturing and laboratory locations worldwide with varying degrees of non-IT systems (such as programmable logic controllers, gauging guidance and adjustment systems and testing equipment). Assessment and testing of non-IT systems for Year 2000 compliance has proven much more difficult than assessing compliance of IT systems because testing of non-IT systems often requires shutdown of the manufacturing operations.

As a result, the company has approached assessment and testing of nonIT systems that are common to many of the company's facilities by (i) contacting the suppliers of these non-IT systems and obtaining statements that the systems are Year 2000 Compliant, and (ii) testing components of non-IT systems when they are shut down for normal maintenance. The company has also shut down manufacturing lines in three of its facilities and tested non- IT systems that are common to many of the company's facilities. These tests demonstrate that "time intervals" instead of "dates" are used almost exclusively in these non-IT systems and support the company's belief that potential disruptions of such systems due to the Year 2000 issue should be minimal.

As of December 31, 1998, approximately 85 percent of the non-IT systems located in the United States that are deemed "Vital" or "Critical" and approximately 90 percent of the non-IT systems in subsidiaries outside the United States that are deemed "Vital" or "Critical" are believed to be Year 2000 Compliant.

Company Products - The vast majority of the company's products are not date-sensitive. The company has collected information on current and discontinued date-sensitive products. This information is available to customers as of the date of this filing.

Third Parties - In addition to internal Year 2000 IT and non-IT remediation activities, the company is in contact with key suppliers and electronic commerce customers to minimize potential disruptions in the relationships between the company and these important third parties related to the Year 2000 issue. The company has also categorized supplies purchased from vendors into three categories: "Vital" (disruption of supply stops the business operation and no short-term solution is available); "Critical" (disruption of supply is inconvenient to the business operation and a short-term solution is
available); and "Marginal" (disruption of supply is inconsequential to the business operation). The company has focused its efforts on those vendors that supply goods or services deemed "Vital" to the company's business. While the company cannot guarantee compliance by third parties, the company is developing contingency plans with its key suppliers that includes the availability of appropriate inventories of supplies in the event the supplier is not Year 2000 Compliant.

Contingency Planning - The company is preparing contingency plans specifying what the company will do if failures occur in IT and non-IT systems, or important third parties are not Year 2000 Compliant. The company expects to finalize contingency plans by March 31, 1999, for its IT and non-IT systems, and by April 30, 1999, for its key suppliers.

Costs - Through December 31, 1998, the company had spent \(\$ 53\) million out of a total estimate of approximately \(\$ 86\) million related to Year 2000 readiness issue. These costs include the costs incurred for external consultants and professional advisors and the costs for software and hardware. The company's process for tracking internal costs does not capture all of the costs incurred for each of the teams working on the Year 2000 project. Such internal costs are principally the related payroll costs for its information systems group and other employees working on the Year 2000 project. The company is expensing as incurred all costs related to the assessment and remediation of the Year 2000 issue. These costs are being funded through operating cash flows.

The company's current estimates of the time and costs necessary to
remediate and test its computer systems are based on the facts and circumstances existing at this time. The estimates were made using assumptions of future events including the continued availability of certain resources, such as skilled IT personnel and electrical power, Year 2000 modification plans, implementation success by key thirdparties, and other factors. New developments could affect the company's estimates of the amount of time and costs needed to modify and test its IT and non-IT systems for Year 2000 compliance. These developments include, but are not limited to: (i) the availability and cost of personnel trained in this area; (ii) the ability to locate and correct all relevant date-sensitive code in both IT and non-IT systems; (iii) unanticipated failures in IT and non-IT systems; and (iv) the planning and Year 2000 compliance success that key customers and suppliers attain.

The company cannot determine the impact of these potential developments on the current estimate of probable costs of making its products and IT and non-IT systems Year 2000 Compliant. Accordingly, the company is not able to estimate possible future costs beyond the current estimates. As new developments occur, these cost estimates may be revised to reflect the impact of these developments on the costs to the company of making its products and IT and non-IT systems Year 2000 Compliant. Such cost revisions could have a material adverse impact on the company's net income in the quarterly period in which they are recorded. Although the company considers it unlikely, such revisions could also have a material adverse effect on the consolidated financial position or annual results of operations of the company.

The Euro Conversion
On January 1, 1999, 11 of the 15 member countries of the European Union (EU) established fixed conversion rates through the European Central Bank (ECB) between existing local currencies and the euro, the EU's new single currency. The participating countries had agreed to adopt the euro as their common legal currency on that date. From that date, the euro is traded on currency exchanges and is available for non-cash transactions.

Following introduction of the euro, local currencies will remain legal tender until December 31, 2001. During this transition period, goods and services may be paid for with the euro or the local currency under the EU's "no compulsion, no prohibition" principle. If cross-border payments are made in a local currency during this transition period, the amount will be converted into euros and then converted from euros into the second local currency at rates fixed by the ECB. By no later than December 31, 2001, the participating countries will issue new euro-denominated bills and coins for use in cash transactions. By no later than July 1, 2002, participating countries will withdraw all bills and coins denominated in local currencies, making the euro conversion complete.

In February 1997, the company created a European Monetary Union (EMU) Steering Committee and project teams representing all company business and staff units in Europe. The common objective of these teams is to ensure a smooth transition to EMU for the company and its constituencies. The scope of the teams' efforts includes (i) assessing the euro's impact on the company's business and pricing strategies for customers and suppliers, and (ii) ensuring that the company's business processes and information technology (IT) systems can process transactions in euros and local currencies during the transition period and achieve the conversion of all relevant local currency data to the euro by December 31, 2001, in the participating countries.

Europe is a significant market for the company, contributing \(26 \%\) of consolidated sales and 20\% of consolidated operating income in 1998 (excluding the restructuring charge). The company believes that the euro will, over time, increase price competition for the company's products across Europe due to cross-border price transparency. The company also believes that the adverse effects of increased price competition will be offset somewhat by new business opportunities and efficiencies in what is the world's second largest economy. The company, however, is not able to estimate the anticipated net longterm impact of the euro introduction on the company.

The company has consolidated IT operations and made significant investments in IT systems in Europe in anticipation of the EMU. The company expects that these investments will enable the company to manage customer orders, invoices, payments and accounts in euros and in local currencies according to customer needs during the three-year transition period. During this period, the company anticipates spending approximately \(\$ 35-50\) million to complete the conversion to the euro. Because the company believes its IT systems will be ready by

December 31, 2001 for the euro conversion, it has not developed contingency plans at this time.

The euro introduction is not expected to have a material impact on the company's overall currency risk. Although the company engages in significant trade within the EU, the impact to date of changes in currency exchange rates on trade within the EU has not been material. The company anticipates the euro will simplify financial issues related to cross-border trade in the EU and reduce the transaction costs and administrative time necessary to manage this trade and related risks. The company believes that the associated savings will not be material to corporate results.

The company has derivatives outstanding beyond January 1, 1999, in several European currencies. Under the EU's "no compulsion, no prohibition" principle, the outstanding derivative positions will either mature as local currency contracts or convert to euro contracts at no additional economic cost to the company. The company believes that systems used to monitor derivative positions can be appropriately modified for these changes. The company
believes the impact of the euro introduction on the company's derivative positions will not be material.

Forward-Looking Statements
The Private Securities Litigation Reform Act of 1995 provides a "safe harbor" for certain forward-looking statements. This Annual Report on Form 10-K contains forward-looking statements, which reflect the Company's current views with respect to future events and financial performance.

These forward-looking statements are subject to certain risks and uncertainties, including those identified below, which could cause actual results to differ materially from historical results or those anticipated. The words "aim," "believe," "expect," "anticipate," "intend," "estimate," "will," "should," "could" and other expressions that indicate future events and trends identify forward-looking statements.

Actual future results and trends may differ materially from historical results or those anticipated depending on a variety of factors, including, but not limited to: foreign exchange rates and fluctuations in those rates; the effects of, and changes in, worldwide economic conditions; raw materials, including shortages and increases in the costs of key raw materials; the impact of the Year 2000 issue (see discussion of the Year 2000 issue in Part I, Item 7 of this Form 10K) ; and legal proceedings (see discussion of Legal Proceedings in Part I, Item 3 of this Form \(10-\mathrm{K}\) ).

Item 8. Financial Statements and Supplementary Data.
Index to Financial Statements


In our opinion, the consolidated financial statements as listed in Item 8 of this Form \(10-K\) present fairly, in all material respects, the consolidated financial position of Minnesota Mining and Manufacturing Company and Subsidiaries at December 31, 1998 and 1997, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 1998, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.
/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

St. Paul, Minnesota
February 8, 1999
<TABLE>
Consolidated Statement of Income
Minnesota Mining and Manufacturing Company and Subsidiaries <CAPTION>
\begin{tabular}{lll} 
Years ended December 31 & 1998 & 1997 \\
(Amounts in millions, except per-share amounts) & & 1996 \\
\(<S>\) & & \(<C>\)
\end{tabular}

Operating expenses
\begin{tabular}{crrr} 
Cost of goods sold & 8,705 & 8,580 & 8,099 \\
Restructuring charge - inventory & 39 & -- \\
Total cost of goods sold & 8,744 & 8,580 & 8,099 \\
Selling, general and administrative expenses & 3,784 & 3,815 & 3,646 \\
Restructuring charge - other & 454 & -- & -- \\
Total & 12,982 & 12,395 & 11,745 \\
perating income
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Other income and expense} \\
\hline Interest expense & 139 & 94 & 79 \\
\hline Investment and other income - net & (42) & (56) & (67) \\
\hline Gain on divestiture - net & (10) & (803) & -- \\
\hline Total & 87 & (765) & 12 \\
\hline \multicolumn{4}{|l|}{Income from continuing operations before income taxes,} \\
\hline Provision for income taxes & 685 & 1,241 & 886 \\
\hline Minority interest & 54 & 78 & 77 \\
\hline Income from continuing operations & 1,213 & 2,121 & 1,516 \\
\hline
\end{tabular}

Discontinued operations
Gain on disposal of discontinued
\begin{tabular}{lll} 
businesses - net of income taxes & -- & 10 \\
\(m e ~ b e f o r e ~ e x t r a o r d i n a r y ~ l o s s ~\) & 1,213 & 2,121
\end{tabular}

Extraordinary loss from early extinguishment
of debt - net of income taxes (38) --

Net income
\(\$ 1,175 \$ 2,121 \$ 1,526\)
Weighted average common shares outstanding
\(403.3 \quad 412.7\)
418.2

Earnings per share - basic
Income from continuing operations \(\quad \$ .01\) \$ 5.14 \$
3.63

Discontinued operations
Extraordinary loss
Net income
\begin{tabular}{lllll} 
& -- & & -- & \\
& \((.10)\) & & -- & \\
\(\$\) & 2.91 & \(\$\) & 5.14 & \(\$\) \\
\hline
\end{tabular}

Weighted average common and
\(\begin{array}{ll}\text { common equivalent shares outstanding } & 408.0 \quad 418.7 \quad 422.1\end{array}\)
Earnings per share - diluted
Income from continuing operations \(\quad \$ \quad 2.97 \quad \$ \quad 5.06 \quad \$ \quad 3.59\)
Discontinued operations
\begin{tabular}{lllll} 
& -- & & -- & \\
& \((.09)\) & & -- & \\
\(\$\) & 2.88 & \(\$\) & 5.06 & \(\$\) \\
\hline
\end{tabular}
<FN>
<F1>
The accompanying Notes to Consolidated Financial Statements are an
integral part of this statement.
</EN>
</TABLE>
<TABLE>
Consolidated Balance Sheet
Minnesota Mining and Manufacturing Company and Subsidiaries <CAPTION>
\begin{tabular}{|c|c|c|}
\hline At December 31 & 1998 & 1997 \\
\hline \multicolumn{3}{|l|}{(Dollars in millions)} \\
\hline <S> & <C> & <C> \\
\hline \multicolumn{3}{|l|}{Assets} \\
\hline \multicolumn{3}{|l|}{Current assets} \\
\hline Cash and cash equivalents & \$ 211 & \$ 230 \\
\hline Other securities & 237 & 247 \\
\hline Accounts receivable - net & 2,666 & 2,434 \\
\hline Inventories & 2,219 & 2,399 \\
\hline Other current assets & 985 & 858 \\
\hline Total current assets & 6,318 & 6,168 \\
\hline Investments & 623 & 613 \\
\hline Property, plant and equipment - net & 5,566 & 5,034 \\
\hline Other assets & 1,646 & 1,423 \\
\hline Total & \$14,153 & \$13,238 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|l|}{Liabilities and Stockholders' Equity} \\
\hline \multicolumn{5}{|l|}{Current liabilities} \\
\hline Accounts payable & \$ & 868 & \$ & 898 \\
\hline Payroll & & 487 & & 306 \\
\hline Income taxes & & 261 & & 238 \\
\hline Short-term debt & & 1,492 & & 1,499 \\
\hline Other current liabilities & & 1,278 & & 1,042 \\
\hline Total current liabilities & & 4,386 & & 3,983 \\
\hline Other liabilities & & 2,217 & & 2,314 \\
\hline Long-term debt & & 1,614 & & 1,015 \\
\hline Stockholders' equity - net & & 5,936 & & 5,926 \\
\hline Shares outstanding - 1998: 401,924,248 & & & & \\
\hline 1997: 404,724,947 & & & & \\
\hline Total & \multicolumn{2}{|r|}{\$14,153} & \multicolumn{2}{|l|}{\$13,238} \\
\hline
\end{tabular}
<FN>
<F1>
The accompanying Notes to Consolidated Financial Statements are an
integral part of this statement.
</FN>
</TABLE>
<TABLE>
Consolidated Statement of Changes in
Stockholders' Equity and Comprehensive Income
Minnesota Mining and Manufacturing Company and Subsidiaries
<CAPTION>
\begin{tabular}{|c|c|c|c|}
\hline \multirow[t]{4}{*}{} & \multicolumn{3}{|l|}{Common} \\
\hline & \multicolumn{3}{|l|}{Stock and} \\
\hline & Capita & & \\
\hline & Excess & Retained & Treasury \\
\hline Total & of Par & Earnings & Stock \\
\hline <C> & <C> & <C> & <C> \\
\hline \$6,884 & \$296 & \$9,164 & \$ \((2,053)\) \\
\hline
\end{tabular}
\begin{tabular}{ll} 
Unearned & \begin{tabular}{l} 
Accumulated \\
Other
\end{tabular} \\
Compen- & Compre- \\
sation & hensive \\
ESOP & Income \\
<C> & <C> \\
\(\$(437)\) & \(\$(86)\)
\end{tabular}
\begin{tabular}{lllll} 
(Dollars in millions, & & Excess & Retained & Treasury \\
except per-share amounts) & Total & of Par & Earnings & Stock
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Cumulative translation - net & (76) & & & & & (76) \\
\hline Fair value adjustments & (1) & & & & & (1) \\
\hline Total comprehensive income & 1,449 & & & & & \\
\hline Dividends paid (\$1.92 per share) & (803) & & (803) & & & \\
\hline Special dividend of Imation Corp. common stock & (1,008) & & (1,008) & & & \\
\hline Amortization of unearned compensation & 25 & & & & 25 & \\
\hline Reacquired stock ( 7.6 million shares) & (532) & & & (532) & & \\
\hline Issuances pursuant to stock option and benefit plans ( 5.7 million shares) & 269 & & (123) & 392 & & \\
\hline Balance at December 31, 1996 & \$6,284 & \$296 & \$8,756 & \$ \((2,193)\) & \$(412) & \$(163) \\
\hline Net income & 2,121 & & 2,121 & & & \\
\hline Cumulative translation - net & (369) & & & & & (369) \\
\hline Fair value adjustments & (7) & & & & & (7) \\
\hline Total comprehensive income & 1,745 & & & & & \\
\hline Dividends paid (\$2.12 per share) & (876) & & (876) & & & \\
\hline Amortization of unearned compensation & 33 & & & & 33 & \\
\hline Reacquired stock ( 18.7 million shares) & \((1,693)\) & & & \((1,693)\) & & \\
\hline Issuances pursuant to stock option and benefit plans ( 6.6 million shares) & 433 & & (153) & 586 & & \\
\hline Balance at December 31, 1997 & \$5,926 & \$296 & \$9,848 & \$ \((3,300)\) & \$(379) & \$(539) \\
\hline Net income & 1,175 & & 1,175 & & & \\
\hline Cumulative translation - net & 29 & & & & & 29 \\
\hline Fair value adjustments & 2 & & & & & 2 \\
\hline Total comprehensive income & 1,206 & & & & & \\
\hline Dividends paid (\$2.20 per share) & (887) & & (887) & & & \\
\hline Amortization of unearned compensation & 29 & & & & 29 & \\
\hline Reacquired stock (7.4 million shares) & (618) & & & (618) & & \\
\hline Issuances pursuant to stock option and benefit plans ( 4.6 million shares) & 280 & & (156) & 436 & & \\
\hline Balance at December 31, 1998 & \$5,936 & \$296 & \$9,980 & \$ \((3,482)\) & \$(350) & \$(508) \\
\hline <FN> & & & & & & \\
\hline <F1> & & & & & & \\
\hline ```
The accompanying Notes to Consolidated
integral part of this statement.
</FN>
</TABLE>
``` & Financial & State & are a & & & \\
\hline
\end{tabular}
<TABLE>
Consolidated Statement of Cash Flows
Minnesota Mining and Manufacturing Company and Subsidiaries <CAPTION>
\begin{tabular}{llll}
\begin{tabular}{l} 
Years ended December 31 \\
(Dollars in millions) \\
<S \(>\)
\end{tabular} & 1998 & 1997 & 1996 \\
\begin{tabular}{l} 
Cash Flows from Operating Activities \\
Net income
\end{tabular} & <C> & <C> & <C> \\
\hline
\end{tabular}

Adjustments to reconcile net income to net cash provided by operating activities
\begin{tabular}{|c|c|c|c|}
\hline Depreciation & 798 & 800 & 825 \\
\hline Amortization & 68 & 70 & 58 \\
\hline Asset impairment charges - restructuring & 182 & -- & -- \\
\hline Gain on divestiture - net & (6) & (495) & -- \\
\hline Income tax paid relating to divestiture & (4) & (308) & -- \\
\hline Implant litigation - net & (255) & 35 & (275) \\
\hline Accounts receivable & (160) & (149) & (170) \\
\hline Inventories & 195 & (295) & (75) \\
\hline Other - net & 381 & 39 & 152 \\
\hline Net cash provided by continuing operations & 2,374 & 1,818 & 2,041 \\
\hline Net cash (used) provided by discontinued operations & -- & (112) & 170 \\
\hline Net cash provided by operating activities & 2,374 & 1,706 & 2,211 \\
\hline Cash Flows from Investing Activities Capital expenditures & \((1,430)\) & (1,406) & \((1,109)\) \\
\hline Proceeds from sale of property, plant and equipment & 25 & 38 & 66 \\
\hline Acquisitions and other investments & (265) & (40) & (263) \\
\hline Proceeds from National Advertising Company divestiture & e & 1,000 & -- \\
\hline Proceeds from other divestitures and investments & 98 & 51 & 62 \\
\hline Discontinued operations - net & -- & -- & (17) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Cash Flows from Financing Activities Change in short-term debt - net & 55 & 705 & & (76) \\
\hline Repayment of long-term debt & (129) & (565) & & (15) \\
\hline Proceeds from long-term debt & 645 & 337 & & 173 \\
\hline Purchases of treasury stock & (618) & \((1,693)\) & & (532) \\
\hline Reissuances of treasury stock & 292 & 355 & & 268 \\
\hline Payment of dividends & (887) & (876) & & (803) \\
\hline Other & (96) & (22) & & 79 \\
\hline Net cash used in financing activities & (738) & \((1,759)\) & & (906) \\
\hline Effect of exchange rate changes on cash & (83) & 57 & & 54 \\
\hline Net (decrease) increase in cash and cash equivalents & (19) & (353) & & 98 \\
\hline Cash and cash equivalents at beginning of year & 230 & 583 & & 485 \\
\hline Cash and cash equivalents at end of year & 211 & \$ 230 & \$ & 583 \\
\hline <FN> & & & & \\
\hline <F1> & & & & \\
\hline The accompanying Notes to Consolidated Financial Stat integral part of this statement. & tements & are an & & \\
\hline </FN> & & & & \\
\hline </TABLE> & & & & \\
\hline
\end{tabular}

Notes to Consolidated Financial Statements
Accounting Policies
Consolidation: All significant subsidiaries are consolidated. All intercompany transactions are eliminated.

Foreign currency translation: Local currencies generally are considered the functional currencies outside the United States, except in countries treated as highly inflationary. Assets and liabilities for operations in local currency environments are translated at yearend exchange rates. Income and expense items are translated at average rates of exchange prevailing during the year. Cumulative translation adjustments are recorded as a component of stockholders' equity.

For operations in countries treated as highly inflationary, certain financial statement amounts are translated at historical exchange rates, with all other assets and liabilities translated at year-end exchange rates. These translation adjustments are reflected in income and are not material.

Use of estimates: The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Cash and cash equivalents: Cash and cash equivalents consist of cash and temporary investments with maturities of three months or less when purchased.

Other securities and investments: Other securities consist of marketable securities and interest-bearing bank deposits with varied maturity dates. These securities are employed in the company's banking, captive insurance and cash management operations. Investments primarily include debt securities held by captive insurance and banking operations; individual and commercial loans receivable held by banking operations; the cash surrender value of life insurance policies; and real estate and venture capital investments.

Inventories: Inventories are stated at lower of cost or market, with cost generally determined on a first-in, first-out basis.

Other assets: Other assets include product and other insurance receivables, goodwill, patents, other intangibles, deferred taxes and other noncurrent assets. Goodwill is amortized on a straight-line basis over the periods benefited, typically 10 to 40 years. Other intangible items are amortized on a straight-line basis over their estimated economic lives.

Revenue recognition: Revenue is recognized upon shipment of goods to customers and upon performance of services. The company sells a wide range of products to a diversified base of customers around the world and, therefore, believes there is no material concentration of credit risk.

Property, plant and equipment: Depreciation of property, plant and equipment generally is computed using the straight-line method based on estimated useful lives of the assets. Fully depreciated assets are retained in property and accumulated depreciation accounts until removed from service. Upon disposal, assets and related accumulated depreciation are removed from the accounts and the net amount, less proceeds from disposal, is charged or credited to operations.

Advertising and merchandising: These costs are charged to operations in the year incurred.

Derivatives and hedging activities: The company uses interest rate swaps, currency swaps, and forward and option contracts to manage risks generally associated with foreign exchange rate, interest rate and commodity market volatility. All hedging instruments are designated as and effective as hedges, as required by generally accepted accounting principles. Instruments that do not qualify for hedge accounting are marked to market with changes recognized in current earnings. The company does not hold or issue derivative financial instruments for trading purposes and is not a party to leveraged derivatives.

Realized and unrealized gains and losses for qualifying hedge instruments are deferred until offsetting gains and losses on the underlying transactions are recognized in earnings. These gains and losses generally are recognized either as interest expense over the borrowing period for interest rate and currency swaps; as an adjustment to cost of goods sold for inventory-related hedge transactions; or in stockholders' equity for hedges of net investments in international companies. Cash flows attributable to these financial instruments are included with the cash flows of the associated hedged items.

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, "Accounting for Derivative Instruments and Hedging Activities." The company must adopt this standard no later than January 1, 2000. The company is reviewing the requirements of this standard. Although the company expects that this standard will not materially affect its financial position or results of operations, it has not yet determined the impact of this standard on its financial statements.

Accounting for stock-based compensation: The company uses the intrinsic value method for the Management Stock Ownership Program. The General Employees' Stock Purchase Plan is considered noncompensatory.

Comprehensive income: Effective January 1, 1998, the company adopted SFAS No. 130, "Reporting Comprehensive Income." Total comprehensive income and the components of accumulated other comprehensive income are presented in the Consolidated Statement of Changes in Stockholders' Equity and Comprehensive Income.

Earnings per share: The difference in the weighted average shares outstanding for calculating basic and diluted earnings per share is attributable to the assumed exercise of Management Stock Ownership Program stock options, if dilutive, and also includes the effect of the assumed exercise of General Employees' Stock Purchase Plan (GESPP) options for periods through June 30, 1997. Effective July 1997, GESPP options no longer have a dilutive effect.

Restructuring Charge
To reduce costs and improve productivity, the company is streamlining corporate structure, consolidating manufacturing operations and exiting certain product lines.

In 1998, the company recorded a restructuring charge of \(\$ 332\) million ( \(\$ 214\) million after tax) in the third quarter and \(\$ 161\) million (\$99 million after tax) in the fourth quarter, for a total of \(\$ 493\) million ( \(\$ 313\) million after tax). As discussed below, a portion of this restructuring charge ( \(\$ 39\) million) has been classified as a component of cost of goods sold. The restructuring charge does not include the write-down of goodwill or other intangible assets.

Of the total restructuring charge, \(\$ 271\) million relates to employee termination benefits. The company expects to terminate approximately 4,800 employees by December 31, 1999. These reductions will take place in each business segment and geographic area of the company and in all major functions.

Under the plan, the company terminated 1,225 employees in the second
half of 1998, of whom about one-third were in the United States and two-thirds were abroad. Because certain employees can defer receipt of termination benefits for up to 12 months, cash payments lag job eliminations. After subtracting payments of \(\$ 39\) million made through December 31, 1998, the company had a remaining liability of \(\$ 232\) million related to employee termination benefits at year-end. This has been classified in current liabilities - payroll on the Consolidated Balance Sheet and will be funded through cash provided by operating activities.

The company plans to consolidate or downsize manufacturing operations including actions in seven locations in the United States, nine in Europe, four in the Asia Pacific area and two in Latin America. As part of the restructuring plan, the company is also discontinuing product lines which had combined annual sales of less than \(\$ 100\) million and marginal operating income in each of the years 1998,1997 and 1996.

The restructuring charge includes \(\$ 143\) million, net of salvage value, for the write-down of assets included in property, plant and equipment. These assets primarily include specialized 3 M manufacturing machinery and equipment. Estimated salvage values are based on estimates of proceeds upon sale of certain of the affected assets.

The restructuring charge also includes \(\$ 79\) million for losses on inventory write-downs and exit plans. The company has taken an inventory write-down of \(\$ 39\) million, which has been classified as a component of cost of goods sold, for certain product lines that are being discontinued. The losses on exit plans include \(\$ 40\) million in incremental costs and contractual obligations for items such as leasehold termination payments and other facility exit costs incurred as a direct result of this plan. After subtracting \(\$ 8\) million in payments made through December 31, 1998, the company had a remaining balance in other current liabilities of \(\$ 32\) million for these exit costs at year-end.

Selected information relating to the restructuring charge follows.
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|l|}{\begin{tabular}{l}
<TABLE> \\
<CAPTION>
\end{tabular}} \\
\hline & Employee & Write-down of & & \\
\hline Term & mination & Property, Plant & & \\
\hline (Millions) B & Benefits & and Equipment & Other & Total \\
\hline <S> & <C> & <C> & <C> & <C> \\
\hline \multicolumn{5}{|l|}{1998 restructuring charge} \\
\hline Third quarter & \$102 & \$161 & \$69 & \$332 \\
\hline Fourth quarter & 169 & -- & 10 & 179 \\
\hline Fourth quarter change in estimate & e & (18) & -- & (18) \\
\hline Total restructuring charge & \$271 & \$143 & \$79 & \$493 \\
\hline \multicolumn{5}{|l|}{Write-down of assets to} \\
\hline Cash payments & (39) & -- & (8) & (47) \\
\hline \multicolumn{5}{|l|}{Restructuring liability as of} \\
\hline December 31, 1998 & \$232 & \$ -- & \$32 & \$264 \\
\hline
\end{tabular}
</TABLE>

Gain on Divestiture
Effective August 15, 1997, the company sold National Advertising Company, an outdoor and mall advertising subsidiary, for cash proceeds of \(\$ 1\) billion. After adjusting for the net cost of the assets sold and for the expenses associated with the divestiture, the company realized a gain of \(\$ 803\) million ( \(\$ 495\) million after tax) or \(\$ 1.18\) per diluted share, in 1997. National Advertising Company had annual sales of about \(\$ 200\) million and operating income of about \(\$ 35\) million. In 1998, a \(\$ 10\) million gain was recorded to finalize the accounting for this sale.

Discontinued Operations
In November 1995, the Board of Directors approved a plan to launch the company's data storage and imaging businesses as an independent, publicly owned company and to discontinue 3 M's audio and video business. In June 1996, the Board of Directors approved the tax-free distribution by 3 M of the common stock of Imation Corp. (Imation) as a special dividend of one share of Imation common stock for every 10 shares of outstanding 3 M common stock held of record as of June 28 , 1996. The company recorded the special dividend of Imation common stock by reducing retained earnings by \(\$ 1.008\) billion, which represented the carrying value of the net assets underlying the common stock distributed. The company's consolidated financial statements
and notes reported Imation and the audio and video business as discontinued operations.

The 1995 loss on disposal of \(\$ 373\) million included the estimated future results of operations through the estimated date of spin-off or closure. The \(\$ 10\) million 1996 gain on disposal reflects final adjustments to the company's 1995 estimated loss on disposal.

\section*{<TABLE>}

Supplemental Statement of Income Information
<CAPTION>
\begin{tabular}{lrrr} 
(Millions) & 1998 & 1997 & 1996 \\
\(<\) S> & \(<\mathrm{C}>\) & \(<\mathrm{C}>\) & \(<\mathrm{C}>\) \\
Research and development costs & \(\$ 1,016\) & \(\$ 1,002\) & \(\$ 947\) \\
Advertising and merchandising & costs & 448 & 471
\end{tabular}

Advertising and merchandising costs
\(448 \quad 471\)
459 </TABLE>
<TABLE>
Supplemental Balance Sheet Information
<CAPTION>
\begin{tabular}{lrr} 
(Millions) & \multicolumn{2}{c}{1998} \\
<S> & <C> & <C> \\
Accounts receivable & \(\$ 2,751\) & \(\$ 2,523\) \\
Accounts receivable & 85 & 89
\end{tabular}

Accounts receivable _ net
\(\$ 2,666\) \$ 2,434
Inventories
\begin{tabular}{lrr} 
Finished goods & \(\$ 1,161\) & \(\$ 1,293\) \\
Work in process & 613 & 605 \\
Raw materials and supplies & 445 & 501
\end{tabular}

Other current assets
Product and other insurance receivables
Deferred income taxes
Other
Total other current assets
291
175 \(\quad \$ \quad 254\)

134
\$ 985
\$ 858
</TABLE>
<TABLE>
Supplemental Balance Sheet Information (continued)
<CAPTION>
(Millions)


Other securities and investments*
Held-to-maturity (amortized cost)
Available-for-sale (fair value)
Other (cost, which approximates fair value)
Total other securities and investments
Property, plant and equipment - at cost
Land
Buildings and leasehold improvements
Machinery and equipment
Construction in progress

Less accumulated depreciation

Other assets
Product and other insurance receivables
Deferred income taxes
\$ 1,423
Total other assets
\$ 1,646
\$
\$ 202
128
9
703
Other current liabilities
Product and other claims
Restructuring
Deposits - banking operations**
Deferred income taxes
Other
Total other current liabilities
\$ 1,278
\$ 1,042
Other liabilities
Product and other claims
Minority interest in subsidiaries
\begin{tabular}{rrrr}
\(\$\) & 447 & \(\$\) & 698 \\
390 & & 361 \\
497 & & 477 \\
260 & & 249 \\
193 & & 89 \\
& 430 & & 440 \\
\(\$ 2,217\) & \(\$ 2,314\)
\end{tabular}
<FN>
<F1>
*Unrealized gains and losses relating to other securities and investments classified as available-for-sale are included as a component of accumulated other comprehensive income in stockholders' equity. Realized gains and losses in 1998 and 1997 were not material. <F2>
**Primarily demand deposits and, as such, the carrying amount approximates fair value.
</FN>
</TABLE>

Supplemental Stockholders' Equity Information
Common stock (\$.50 par value per share; without par value at December 31, 1996) of 1 billion shares is authorized, with \(472,016,528\) shares issued in 1998, 1997 and 1996. Common stock and capital in excess of par includes \(\$ 60\) million transferred from common stock to capital in excess of par value during 1997. Preferred stock, without par value, of 10 million shares is authorized but unissued. The following table shows the ending balances of the components of accumulated other comprehensive income. The tax effects and reclassification adjustments were not material.
<TABLE>
<CAPTION>
(Millions) 199819971996
<S> Accumulated other comprehensive income
Cumulative translation - net
<C> <C> <C>
cumulative translation - net \$ (518) \$ (547) \$ (178)
\(\begin{array}{ccccc}\text { Debt and equity securities, unrealized gain - net } & 10 & 8 & 15 \\ \text { Total accumulated other comprehensive income } & \$(508) & \$ & \text { (539) } & \$(163)\end{array}\) </TABLE>

Supplemental Cash Flow Information
Income tax payments and interest payments included in the Consolidated Statement of Cash flows are shown below.
<TABLE>
<CAPTION>
\begin{tabular}{llll} 
(Millions) & 1998 & 1997 & 1996 \\
\(<\) S \(>\) & \(<C>\) & \(<C>\) & \(<C>\) \\
Income tax payments & \(\$ 467\) & \(\$ 1,123\) & \(\$ 761\)
\end{tabular}
\(\begin{array}{lrrr}\text { Income tax payments } & \$ 467 & \$ 1,123 & \$ 761 \\ \text { Interest payments } & 130 & 91 & 78\end{array}\)
</TABLE>
Income tax payments in 1997 include \(\$ 308\) million related to the gain on the sale of National Advertising Company.

In 1998, the 3 M Employee Stock Ownership Plan (ESOP) refinanced its existing debt by issuing new debt of \(\$ 385\) million. Because the company has guaranteed repayment of the ESOP debt, the debt and related unearned compensation are recorded on the Consolidated Balance Sheet. The repayment of principal and proceeds of long-term debt relating to the ESOP have been excluded from the financing activities of the company in the Consolidated Statement of Cash Flows because the funds involved were received and disbursed by the ESOP trust.

In connection with the spin-off of Imation, the company recorded cash proceeds of \(\$ 79\) million in 1996, primarily related to the sale of international assets to Imation. Imation also retired \(\$ 65\) million of short-term debt related to its businesses as of June 30, 1996.

In 1996, 3M increased its ownership in 3 M Korea from 60 percent to 100 percent by purchasing the remaining interest from minority shareholders. The purchase price included the deferral of \(\$ 72\) million in installment payments over the period 1997 through 1999.

Debt
<TABLE>
<CAPTION>
Short-Term Debt Effective
\begin{tabular}{lcrr} 
(Millions) & Interest Rate* & 1998 & 1997 \\
<S \(>\) & \(<C>\) & \(<C>\) & \(<C>\) \\
Commercial paper & \(5.05 \%\) & \(\$ 978\) & \(\$ 1,070\) \\
Long-term debt - current portion & \(5.03 \%\) & 131 & 163 \\
Other borrowings & \(6.09 \%\) & 383 & 266 \\
Total short-term debt & & \(\$ 1,492\) & \(\$ 1,499\)
\end{tabular}
</TABLE>
<TABLE>
<CAPTION>
\begin{tabular}{|c|c|c|c|c|}
\hline Long-Term Debt (Millions) & Effective Interest Rate* & \begin{tabular}{l}
Maturity \\
Date
\end{tabular} & 1998 & 1997 \\
\hline <S> & <C> & <C> & <C> & <C> \\
\hline ESOP debt guarantee & 5.62\% & 2000-2009 & \$ 359 & \$ 338 \\
\hline U.S. dollar 6.375\% note & 6.38\% & 2028 & 330 & -- \\
\hline U.S. dollar 6.625\% Eurobond & 4.67\% & 2001 & 250 & 250 \\
\hline 3M Deutschland GmbH 5.75\% Eurobond & d 3.56\% & 2001 & 216 & -- \\
\hline German mark 5\% Euronote & 4.90\% & 2001 & 165 & 165 \\
\hline Medium-term 6.25\% note & -- & 1999 & -- & 100 \\
\hline Sumitomo 3M Limited 0.795\% note & \(0.795 \%\) & 2003 & 88 & - \\
\hline Other borrowings & 5.57\% & 2000-2037 & 206 & 162 \\
\hline Total long-term debt & & & \$1,614 & \$1,015 \\
\hline
\end{tabular}
<FN>
<F1>
*Reflects the effects of interest rate and currency swaps at December 31, 1998.
</FN>
</TABLE>
Debt with fixed interest rates includes the ESOP, U.S. dollar 6.375 percent note, Sumitomo 3 M Limited note, and a portion of other borrowings. ESOP debt is serviced by dividends on stock held by the ESOP and by company contributions. These contributions are reported as an employee benefit expense. Debt not denominated in U.S. dollars includes the 5.75 percent Eurobond, the Sumitomo 3M Limited note, and most of other borrowings. Other borrowings include debt held by 3M's international companies and floating rate notes and industrial bond issues in the United States.

Maturities of long-term debt for the next five years are: 1999, \$131 million; 2000, \(\$ 39\) million; 2001, \(\$ 674\) million; 2002, \(\$ 36\) million; and 2003, \(\$ 140\) million.

The company estimates that the fair value of short-term and long-term debt approximates the carrying amount of this debt. Debt covenants do not restrict the payment of dividends.

At year-end 1998, the company had available short-term lines of credit totaling about \(\$ 670\) million.

Other Financial Instruments
Interest rate and currency swaps: The company uses interest rate and currency swaps to manage interest rate risk related to borrowings. The notional amounts shown in the table below serve solely as a basis for the calculation of payment streams to be exchanged. These notional amounts are not a measure of the company's exposure through its use of derivatives. These instruments generally mature in relationship to their underlying debt and have maturities extending to 2001. Unrealized gains and losses and exposure to changes in market conditions were not material at December 31, 1998 and 1997.
<TABLE>
<CAPTION>
Notional Amounts
\begin{tabular}{lll} 
(Millions) & 1998 & 1997 \\
<S> & <C \(>\) & <C \(>\) \\
Interest rate swaps & \(\$ 350\) & \(\$ 514\) \\
Currency swaps & 265 & 452
\end{tabular}

Currency swaps
</TABLE>
Foreign exchange forward and options contracts: The company has entered into foreign exchange forward and options contracts, the majority of which have maturities of less than one year. The face amounts represent contracted U.S. dollar equivalents of forward and options contracts denominated in foreign currencies. The amounts at risk are not material because the company has the ability to generate offsetting foreign currency cash flows. Unrealized gains and losses at December 31, 1998 and 1997, were not material.
<TABLE>
<CAPTION>
Face Amounts
(Millions)
<S>
\begin{tabular}{rl}
\(\quad 1998\) & 1997 \\
<C> & \(<\mathrm{C}\rangle\) \\
\(\$ 1,050\) & \(\$ 966\) \\
590 & 472 \\
88 & 123
\end{tabular}
orward contracts
88123
Options sold
</TABLE>
The company engages in hedging activities to reduce exchange rate risks arising from cross-border cash flows denominated in foreign
currencies. The company operates on a global basis, generating more than half its revenues internationally and engaging in substantial product and financial transfers among geographic areas. Major forward contracts at December 31, 1998, were denominated in British pounds, Japanese yen, German marks, Singapore dollars and Belgian francs.

Credit risk: The company is exposed to credit loss in the event of nonperformance by counterparties in interest rate swaps, currency swaps, and option and foreign exchange contracts, but does not anticipate nonperformance by any of these counterparties. The company actively monitors its exposure to credit risk through the use of credit approvals and credit limits, and by selecting major international banks and financial institutions as counterparties.

Leases
Rental expense under operating leases was \(\$ 125\) million in both 1998 and 1997, and \(\$ 138\) million in 1996. The table below shows minimum payments under operating leases with noncancelable terms in excess of one year, as of December 31, 1998.
<TABLE>
<CAPTION>
(Millions)
<S>

Income Taxes
In 1998, the company refinanced debt related to its Employee Stock Ownership Plan. The provision for income taxes shown below excludes a \(\$ 21\) million tax benefit related to this refinancing. In 1997, the gain on the sale of National Advertising Company, a U.S. business, was taxed at a rate of 38.4 percent (federal statutory rate of 35.0 percent and a net effective state tax rate of 3.4 percent). The 1997 information reflects the pre-tax gain of \(\$ 803\) million on the sale and related income taxes paid of \(\$ 308\) million.
<TABLE>
Income from Continuing Operations before
Income Taxes and Minority Interest
<CAPTION>
(Millions)
<S>
United States
International
Total
</TABLE>
<TABLE>
Provision for Income Taxes
<CAPTION>
(Millions)
<S>
Currently payable
Federal
State
International
Deferred
Federal
State
International
Total
</TABLE>
<TABLE>
Components of Deferred Tax Assets
and Liabilities
<CAPTION>
(Millions)
<S>
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{2}{|r|}{1998} & \multicolumn{2}{|r|}{1997} & \multicolumn{2}{|r|}{1996} \\
\hline \multicolumn{2}{|l|}{<C>} & \multicolumn{2}{|l|}{<C>} & \multicolumn{2}{|l|}{<C>} \\
\hline \$ & 186 & \$ & 823 & \$ & 331 \\
\hline & 52 & & 127 & & 63 \\
\hline & 308 & & 370 & & 405 \\
\hline & 149 & & (57) & & 76 \\
\hline & 13 & & (5) & & 7 \\
\hline & (23) & & (17) & & 4 \\
\hline \$ & 685 & & , 241 & \$ & 886 \\
\hline
\end{tabular}
\begin{tabular}{rrr} 
1998 & \multicolumn{1}{c}{1997} & \multicolumn{1}{c}{1996} \\
<C> & <C \(>\) & <C> \\
\(\$ 1,326\) & \(\$ 2,607\) & \(\$ 1,534\) \\
626 & 833 & 945 \\
\(\$ 1,952\) & \(\$ 3,440\) & \(\$ 2,479\)
\end{tabular}
\begin{tabular}{lr}
\begin{tabular}{lr}
1998 & 1997 \\
\(\langle\mathrm{C}\rangle\) & \(\langle\mathrm{C}\rangle\)
\end{tabular} \\
\(\$ 288\) & \(\$ 247\) \\
93 & -- \\
254 & 343 \\
\((439)\) & \((404)\) \\
\((333)\) & \((243)\) \\
201 & 260 \\
\(\$ 64\) & \(\$ 203\)
\end{tabular}
currently not deductible
Benefit costs
Severance and other restructuring costs
Product and other claims
343
Product and other insurance receivables
Accelerated depreciation
(243)

Other
Net deferred tax asset
\$203
</TABLE>

At December 31, 1998, about \(\$ 2.643\) billion of retained earnings attributable to international companies were considered to be
indefinitely invested. No provision has been made for taxes that might be payable if these earnings were remitted to the United States. It is not practical to determine the amount of incremental taxes that might arise were these earnings to be remitted.
<TABLE>
<CAPTION>
\begin{tabular}{lccc} 
Reconciliation of Effective Income Tax Rate & 1998 & 1997 & 1996 \\
<S & <C> & \(<\) C \(>\) & \(<\mathrm{C}>\) \\
Statutory U.S. tax rate & \(35.0 \%\) & \(35.0 \%\) & \(35.0 \%\) \\
State income taxes - net & 2.4 & 2.3 & 1.8 \\
International income taxes - net & .8 & .2 & .5 \\
All other - net & \((3.1)\) & \((1.4)\) & \((1.5)\) \\
\(\quad\) Effective worldwide tax rate & \(35.1 \%\) & \(36.1 \%\) & \(35.8 \%\)
\end{tabular}

解
</TABLE>

Business Segments
Effective at year-end 1998, the company adopted SFAS No. 131, "Disclosure about Segments of an Enterprise and Related Information." Prior period amounts have been restated to conform to the requirements of this statement.

3M's businesses are organized, managed, and internally reported as three segments. The segments, which are based on differences in products, technologies and services, are Industrial and Consumer; Transportation, Safety and Specialty Material; and Health Care. These segments have worldwide responsibility for virtually all of the company's product lines. These product lines serve a wide range of markets, including automotive, communications, consumer, electronics, health care, industrial, office, personal care and safety. 3M is not dependent on any single product or market.

Transactions between reportable segments are recorded at cost. 3 M is an integrated enterprise characterized by substantial intersegment cooperation, cost allocations and inventory transfers. Therefore, management does not represent that these segments, if operated independently, would report the operating income and other financial information shown.
<TABLE>
<CAPTION>

<FN>
<F1>
*Operating income includes unallocated corporate overhead expenses,
some of which historically were allocated to discontinued operations.
Operating income for 1998 includes a \(\$ 493\) million restructuring
charge.
<F2>
**Segment assets primarily include accounts receivable; inventory;
property, plant and equipment - net; and other miscellaneous assets. Assets included in Corporate and Unallocated principally are cash and cash equivalents; other securities; insurance receivables; deferred income taxes; certain investments and other assets; and certain unallocated property, plant and equipment.
</FN>
</TABLE>

Business Segments (continued)
<TABLE>
Revenue by Classes of Similar Products or Services and Segments* (Unaudited)
<CAPTION>
\begin{tabular}{lrrr} 
(Millions) & 1998 & 1997 & 1996 \\
<S> & \(<C>\) & \(<C>\) & \(<C>\) \\
Tapes (I\&C) & \(\$ 2,005\) & \(\$ 1,080\) & \(\$ 2,096\) \\
Abrasives (I\&C) & 1,332 & 1,326 & 1,270 \\
Automotive products and specialty materials (TS\&SM) & 1,687 & 1,647 & 1,460 \\
Connecting and insulating (I\&C) & 1,733 & 1,739 & 1,564 \\
Consumer and office (I\&C) & 2,611 & 2,603 & 2,460 \\
Health care (HC) & 2,540 & 2,476 & 2,356 \\
Safety and personal care (TS\&SM, HC) & 1,497 & 1,355 & 1,301 \\
All other products (All) & 1,616 & 1,844 & 1,729 \\
Total & \(\$ 15,021\) & \(\$ 15,070\) & \(\$ 14,236\)
\end{tabular}

\section*{<EN>}
<F1>
*Industrial and Consumer (I\&C); Transportation, Safety and
Specialty Material (TS\&SM); Health Care (HC).
</FN>
</TABLE>
Geographic Areas
Information in the table below is presented on the basis the company uses to manage its businesses. Export sales and certain income and expense items are reported within the geographic area where the final sales to customers are made.
<TABLE>
<CAPTION>


Retirement and Postretirement Benefit Plans
Effective at year-end 1998, the company adopted SFAS No. 132, "Employers' Disclosures about Pensions and Other Postretirement Benefits." Information for prior years has been restated to conform to the requirements of this statement.

3M has various company-sponsored retirement plans covering substantially all U.S. employees and many employees outside the United States. Pension benefits are based principally on an employee's years of service and compensation near retirement. In addition to providing pension benefits, the company provides certain postretirement health care and life insurance benefits for substantially all of its U.S. employees who reach retirement age while employed by the company. Most international employees and retirees are covered by government health care programs. The cost of company-provided health care plans for these international employees is not material.

\footnotetext{
The company's pension funding policy is to deposit with an independent trustee amounts at least equal to those required by law. A trust fund is maintained to provide pension benefits to plan participants and their beneficiaries. A number of plans are maintained by deposits with insurance companies. In addition, the company has set aside funds for its U.S. postretirement plan with an independent trustee and makes periodic contributions to the plan.
}
<TABLE>
<CAPTION>
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Benefit Plan Information} & \multicolumn{4}{|c|}{Pension Benefits} & \multicolumn{4}{|r|}{\multirow[b]{2}{*}{Other Benefits}} \\
\hline & \multicolumn{2}{|c|}{U.S.} & \multicolumn{2}{|l|}{International} & & & & \\
\hline (Millions) & 1998 & 1997 & 1998 & 1997 & & 1998 & & 1997 \\
\hline <S> & <C> & <C> & <C> & <C> & <C> & & <C & \\
\hline \multicolumn{9}{|l|}{Reconciliation of benefit obligation} \\
\hline Beginning balance & \$5,392 & \$4,800 & \$1,435 & \$1,439 & \$ & 995 & \$ & 943 \\
\hline Service cost & 130 & 115 & 69 & 52 & & 36 & & 36 \\
\hline Interest cost & 377 & 354 & 95 & 96 & & 62 & & 65 \\
\hline Participant contributions & - & - & 6 & 6 & & 6 & & 6 \\
\hline Foreign exchange rate changes & - & - & 60 & (96) & & - & & - \\
\hline Plan amendments & 100 & 1 & - & - & & - & & 5 \\
\hline Actuarial (gain) loss & 492 & 382 & 194 & (20) & & (2) & & 1 \\
\hline Benefit payments & (290) & (260) & (44) & (42) & & (67) & & (61) \\
\hline Ending balance & \$6,201 & \$5,392 & \$1,815 & \$1,435 & & , 030 & \$ & 995 \\
\hline \multicolumn{9}{|l|}{Reconciliation of plan assets at fair value} \\
\hline Beginning balance & \$5,411 & \$4,642 & \$1,458 & \$1,369 & \$ & 482 & \$ & 449 \\
\hline Actual return on plan assets & 1,018 & 908 & 164 & 165 & & 52 & & 38 \\
\hline Company contributions & 83 & 121 & 58 & 47 & & 50 & & 50 \\
\hline Participant contributions & - & - & 6 & 6 & & 6 & & 6 \\
\hline Foreign exchange rate changes & - & - & 45 & (89) & & - & & - \\
\hline Benefit payments & (279) & (260) & (41) & (40) & & (67) & & (61) \\
\hline Ending balance & \$6,233 & \$5,411 & \$1,690 & \$1,458 & \$ & 523 & \$ & 482 \\
\hline \multicolumn{9}{|l|}{Plan assets at fair value} \\
\hline \multicolumn{9}{|l|}{Unrecognized transition} \\
\hline Unrecognized prior service cost & 179 & 116 & 49 & 51 & & (48) & & (59) \\
\hline Unrecognized (gain) loss & (181) & (94) & 47 & (82) & & 58 & & 95 \\
\hline Net prepaid (payable) recognized & \$ (7) & \$ (33) & \$ (5) & \$ 14 & \$ & (497) & \$ & (477) \\
\hline \multicolumn{9}{|l|}{</TABLE>} \\
\hline \multicolumn{9}{|l|}{The company's U.S. nonqualified pension plan had an accumulated} \\
\hline \multicolumn{9}{|l|}{benefit obligation in excess of plan assets in both 1998 and 1997.} \\
\hline \multicolumn{9}{|l|}{The plan's accumulated benefit obligation was \(\$ 175\) million at December} \\
\hline \multicolumn{9}{|l|}{31, 1998, and \$143 million at December 31, 1997. There are no plan} \\
\hline \multicolumn{9}{|l|}{assets in the nonqualified plan due its nature.} \\
\hline \multicolumn{9}{|l|}{Certain international pension plans were underfunded. As of year-end} \\
\hline \multicolumn{9}{|l|}{1998 and 1997, the accumulated benefit obligations of these plans were} \\
\hline \multicolumn{9}{|l|}{\$418 million and \$84 million, respectively, and the assets of these} \\
\hline \multicolumn{9}{|l|}{plans were \(\$ 384\) million and \$69 million, respectively. The net} \\
\hline underfunded amount is included & in oth & er liab & ties & the & & & & \\
\hline \multicolumn{9}{|l|}{Consolidated Balance Sheet.} \\
\hline
\end{tabular}

\section*{<TABLE>}
<CAPTION>
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Benefit Plan Information} & \multicolumn{6}{|c|}{Pension Benefits} & \multicolumn{3}{|l|}{\multirow[b]{2}{*}{Other Benefits}} \\
\hline & \multicolumn{3}{|c|}{U.S.} & \multicolumn{3}{|l|}{International} & & & \\
\hline (Millions) & 1998 & 1997 & 1996 & 1998 & 1997 & 1996 & 1998 & 1997 & 1996 \\
\hline <S> & <C> & <C> & <C> & <C> & <C> & <C> & <C> & <C> & <C> \\
\hline \multicolumn{10}{|l|}{Components of net periodic benefit cost} \\
\hline Service cost & \$130 & \$115 & \$121 & \$ 80 & \$ 67 & \$ 69 & \$ 36 & \$ 36 & \$ 36 \\
\hline Interest cost & 377 & 354 & 332 & 95 & 96 & 94 & 62 & 65 & 66 \\
\hline Expected return on assets & (440) & (381) & (349) & (103) & (106) & (97) & (32) & (28) & (26) \\
\hline Amortization of transition (asset) obligation & (37) & (37) & (37) & (1) & (1) & (1) & - & - & - \\
\hline \multicolumn{10}{|l|}{\begin{tabular}{l}
Amortization of prior service \\
cost 38
\end{tabular}} \\
\hline Recognized net actuarial (gain) loss & - & - & (6) & 3 & (1) & - & - & 1 & (9) \\
\hline Net periodic benefit cost & \$ 68 & \$ 87 & \$ 99 & \$ 82 & \$ 64 & \$ 74 & \$ 55 & \$ 63 & \$ 61 \\
\hline \multicolumn{10}{|l|}{Weighted average assumptions} \\
\hline Discount rate & 6.50\% & 7.00\% & 7.50\% & 5.58\% & 6.47\% & 7.10\% & 6.50\% & 7.00\% & 7.50\% \\
\hline Expected return on assets & 9.00\% & 9.00\% & 9.00\% & 6.72\% & 7.03\% & 7.68\% & 6.25\% & 6.25\% & 6.25\% \\
\hline Compensation rate increase & 4.65\% & 4.85\% & 4.85\% & 4.02\% & 4.35\% & 5.60\% & 4.65\% & 4.85\% & 4.85\% \\
\hline
\end{tabular}
</TABLE>
The company expects its health care cost trend rate for postretirement benefits to slow from 6.4 percent in 1999 to 5.0 percent in 2004, after which the rate is expected to stabilize. A one percentage point change in the assumed health care cost trend rates would have the following effects.
<TABLE>
<CAPTION>

\section*{(Millions)}
<S>
1 Percentage 1 Percentage
Point Increase
<C>
Point Decrease
Effect on current year's benefit expense
Effect on benefit obligation
\$ 12
<C>
\$ (10)
(84)
</TABLE>

Employee Savings and Stock Ownership Plans
The company sponsors employee savings plans under Section \(401(\mathrm{k})\) of
the Internal Revenue Code. These plans are offered to substantially all regular U.S. employees. Employee contributions of up to 6 percent of compensation are matched at rates ranging from 10 to 35 percent, with additional company contributions depending upon company performance.

The company maintains an Employee Stock Ownership Plan (ESOP). This plan was established in 1989 as a cost effective way of funding the majority of the company's contributions under \(401(k)\) employee savings plans. Total ESOP shares are considered to be shares outstanding for earnings per share calculations.

In 1998, the ESOP refinanced its existing debt by issuing new debt of \(\$ 385\) million at an interest rate of 5.62 percent. This refinancing extended the life of the original ESOP from 2004 to 2009. The company incurred a one-time charge of \(\$ 59\) million ( \(\$ 38\) million after tax, or \(\$ 0.09\) per diluted share), which is reported as an extraordinary loss from early extinguishment of debt.

Dividends on shares held by the ESOP are paid to the ESOP trust and, together with company contributions, are used by the ESOP to repay principal and interest on the outstanding notes. Over the life of the notes, shares are released for allocation to participants based on the ratio of the current year's debt service to the remaining debt service prior to the current payment.

The ESOP has been the primary funding source for the company's employee savings plans. Expenses related to the ESOP generally represent total debt service on the notes, less dividends. The company contributes treasury shares to employee savings plans to cover obligations not funded by the ESOP. These amounts are reported as an employee benefit expense. Unearned compensation, shown as a reduction of stockholders' equity, is reduced symmetrically as the ESOP makes principal payments.
<TABLE>
<CAPTION>
ESOP Information
\begin{tabular}{llll} 
(Millions) & 1998 & 1997 & 1996 \\
<S> & <C> & <C> & <C> \\
Dividends on shares held by the ESOP & \(\$ 31\) & \(\$ 30\) & \(\$ 28\) \\
Company contributions to the ESOP & 44 & 37 & 37 \\
Interest incurred on ESOP notes & 29 & 32 & 34 \\
Expenses related to the ESOP & 37 & 36 & 36
\end{tabular}

Expenses related to the ESOP
</TABLE>
In July 1996, the ESOP received Imation shares from the spin-off distribution. These shares were sold and the proceeds were used to purchase additional 3M shares.
<TABLE>
<CAPTION>
ESOP Shares 19981997
<S>
<C>
6,586,192
<C>
1996
6,006,099 5,202,188
Committed to be released
85,153
7,457,88
8,286,949 9,103,730
Total ESOP shares
14,129,230
8,286,949
</TABLE>

General Employees' Stock Purchase Plan
Substantially all employees are eligible to participate in the company's General Employees' Stock Purchase Plan (GESPP). Participants are granted options at 85 percent of market value at the date of grant. Effective July 1997, options are granted on the first business day and exercised on the last business day of the same month. Previously, GESPP options were exercised within 27 months from the date of grant.
<TABLE>
<CAPTION>
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline & Shares & Exercise
Price* & Shares & Exercise
Price* & \multicolumn{2}{|r|}{Exercise} \\
\hline <S> & <C> & <C> & <C> & <C> & <C> & <C> \\
\hline \multicolumn{7}{|l|}{Under option-} \\
\hline January 1 & -- & \$ & 292,495 & \$62.35 & 350,805 & \$50.21 \\
\hline Granted & 1,271,120 & 69.91 & 1,123,358 & 77.50 & 1,498,538 & 58.78 \\
\hline Exercised & \((1,271,120)\) & 69.91 & \((1,293,282)\) & 74.67 & \((1,501,011)\) & 55.67 \\
\hline Canceled & -- & -- & \((122,571)\) & 71.21 & \((55,837)\) & 52.07 \\
\hline December 31 & -- & -- & -- & -- & 292,495 & \$62.35 \\
\hline Options exerci December 31 & e- & -- & -- & -- & 84,893 & \$63.87 \\
\hline \begin{tabular}{l}
Shares availab \\
December 31
\end{tabular} & or grant-
\[
10,521,542
\] & & 11,792,662 & & 12,793,449 & \\
\hline
\end{tabular}
<FN>
<F1>
*Weighted average
</FN>
</TABLE>

Management Stock Ownership Program
In May 1997, shareholders approved an additional 35 million shares for issuance under the Management Stock Ownership Program (MSOP). Management stock options are granted at market value at the date of grant. These options generally are exercisable one year after the date of grant and expire 10 years from the date of grant. At year-end, there were 10,594 participants in the plan. To preserve the intrinsic value of management stock options after the Imation spin-off, the number of outstanding options and related exercise prices were adjusted in 1996, resulting in no economic impact to participants or the company.
<TABLE>
<CAPTION>

<EN>
<F1>
*Weighted average
</FN>
</TABLE>

Management Stock Ownership Program (continued)
<TABLE>
Options Outstanding and Exercisable at December 31, 1998
<CAPTION>

<F1>
*Weighted average
</EN>
</TABLE>
Stock-Based Compensation
No compensation cost has been recognized for the General Employees' Stock Purchase Plan (GESPP) or the Management Stock Ownership Program (MSOP). Pro forma amounts based on the options' estimated fair value, net of tax, at the grant dates for awards under the GESPP and MSOP are presented below.
<TABLE>
Pro Forma Net Income and Earnings Per Share
<CAPTION>
\begin{tabular}{|c|c|c|c|}
\hline (Millions) & 1998 & 1997 & 1996 \\
\hline <S> & <C> & <C> & <C> \\
\hline \multicolumn{4}{|l|}{Net income} \\
\hline As reported & \$1,175 & \$2,121 & \$1,526 \\
\hline Pro forma & 1,072 & 2,032 & 1,439 \\
\hline \multicolumn{4}{|l|}{Earnings per share - basic} \\
\hline As reported & \$ 2.91 & \$ 5.14 & \$3.65 \\
\hline Pro forma & 2.66 & 4.92 & 3.44 \\
\hline \multicolumn{4}{|l|}{Earnings per share - diluted} \\
\hline As reported & \$ 2.88 & \$ 5.06 & \$3.62 \\
\hline Pro forma & 2.63 & 4.85 & 3.41 \\
\hline
\end{tabular}

The weighted average fair value per option granted during 1998, 1997 and 1996 was \(\$ 12.34\), \(\$ 13.67\) and \(\$ 10.37\), respectively, for the GESPP, and \(\$ 20.41, \$ 21.81\) and \(\$ 13.43\), respectively, for the incentive MSOP grants. The weighted average fair value was calculated by using the fair value of each option on the date of grant. The fair value of GESPP options was based on the 15 percent purchase discount. For MSOP options the fair value was calculated utilizing the Black-Scholes option-pricing model and the assumptions that follow.
<TABLE>
<CAPTION>
\begin{tabular}{lccc} 
MSOP Assumptions & 1998 & 1997 & 1996 \\
<S> & <C> & <C> & <C> \\
Risk-free interest rate & \(5.7 \%\) & \(6.6 \%\) & \(6.4 \%\) \\
Dividend growth rate & \(5.8 \%\) & \(5.8 \%\) & \(4.3 \%\) \\
Volatility & \(17.6 \%\) & \(15.0 \%\) & \(14.2 \%\) \\
Expected life (months) & 69 & 67 & 66
\end{tabular}
</TABLE>
The GESPP and MSOP options, if exercised, would have the following dilutive effect on shares outstanding for 1998, 1997 and 1996, respectively: 4.7 million, 6.0 million and 3.9 million shares. Beginning July 1997, GESPP options had no dilutive effect. MSOP options to purchase 10.8 million shares of common stock at an average price of \(\$ 92.14\) were outstanding at year-end 1998. These MSOP options were not included in the computation of diluted earnings per share because they would not have had a dilutive effect.

Legal Proceedings
Discussion of legal matters is incorporated by reference from Part \(I\), Item 3, of this Form 10-K, and should be considered an integral part of the Consolidated Financial Statements and Notes.
<TABLE>
Quarterly Data (Unaudited)
(Millions, except per-share amounts) <CAPTION>
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & First & & Second & & Third & & Fourth & & Year \\
\hline <S> & <C> & & <c & > & < 0 & > & \(<\mathrm{C}\) & & <C & \\
\hline \multicolumn{11}{|l|}{Net sales} \\
\hline 1998 & & 3,700 & & 3,770 & \$ & 3,766 & \$ & 3,785 & & 5,021 \\
\hline 1997 & & 3,714 & & 3,817 & & 3,826 & & 3,713 & & 5,070 \\
\hline \multicolumn{11}{|l|}{Cost of goods sold*} \\
\hline 1998 & & 2,096 & & 2,162 & \$ & 2,219 & \$ & 2,267 & \$ & 8,744 \\
\hline 1997 & & 2,089 & & 2,156 & & 2,173 & & 2,162 & & 8,580 \\
\hline \multicolumn{11}{|l|}{Income before extraordinary loss*} \\
\hline 1998 & \$ & 400 & \$ & 386 & \$ & 178 & \$ & 249 & \$ & 1,213 \\
\hline 1997 & & 410 & & 418 & & 927 & & 366 & & 2,121 \\
\hline \multicolumn{11}{|l|}{Net income*} \\
\hline 1998 & \$ & 400 & \$ & 386 & \$ & 178 & \$ & 211 & \$ & 1,175 \\
\hline 1997 & & 410 & & 418 & & 927 & & 366 & & 2,121 \\
\hline \multicolumn{11}{|l|}{Basic earnings per share - income before extraordinary loss*} \\
\hline 1998 & \$ & . 99 & \$ & . 95 & \$ & . 44 & \$ & . 62 & \$ & 3.01 \\
\hline 1997 & & . 99 & & 1.01 & & 2.25 & & . 90 & & 5.14 \\
\hline \multicolumn{11}{|l|}{Basic earnings per share - net income*} \\
\hline 1998 & \$ & . 99 & \$ & . 95 & \$ & . 44 & \$ & . 52 & \$ & 2.91 \\
\hline 1997 & & . 99 & & 1.01 & & 2.25 & & . 90 & & 5.14 \\
\hline \multicolumn{11}{|l|}{Diluted earnings per share - income before extraordinary loss*} \\
\hline 1998 & \$ & . 98 & \$ & . 94 & \$ & . 44 & \$ & . 61 & \$ & 2.97 \\
\hline 1997 & & . 97 & & . 99 & & 2.21 & & . 89 & & 5.06 \\
\hline Diluted earnings per & sh & are - & t & income & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{llllllllll}
1998 & \(\$\) & .98 & \(\$\) & .94 & \(\$\) & .44 & \(\$\) & .52 & \(\$\) \\
1997 & & .97 & & .99 & & 2.21 & & .89 & \\
\hline
\end{tabular}
\begin{tabular}{lllrrrrr} 
Stock price comparisons (NYSE & composite & transactions) & \\
1998 & High & \(\$ 96.13\) & \(\$ 97.88\) & \(\$ 84.44\) & \(\$\) & 87.50 & \(\$ 97.88\) \\
1998 & Low & 80.06 & 80.38 & 65.63 & 69.38 & 65.63 \\
1997 & High & 93.25 & 105.50 & 104.50 & 101.19 & 105.50 \\
1997 & Low & 80.00 & 80.13 & 86.00 & 81.38 & 80.00
\end{tabular}
<FN>
<F1>
*Third quarter 1998 includes a total restructuring charge of \$332 million ( \(\$ 214\) million after tax, or \(\$ .53\) per diluted share); fourth quarter 1998 includes a total restructuring charge of \(\$ 161\) million ( \(\$ 99\) million after tax, or \(\$ .25\) per diluted share), and an extraordinary loss from early extinguishment of debt of \(\$ 38\) million after tax, or \(\$ .09\) per diluted share. The inventory portion of the restructuring charge, included in cost of goods sold, totaled \(\$ 29\) million in third quarter 1998 and \(\$ 10\) million in fourth quarter 1998. Third quarter 1997 includes a gain on the sale of National Advertising Company of \(\$ 803\) million ( \(\$ 495\) million after tax, or \(\$ 1.18\) per diluted share).
</FN>
</TABLE>

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

None.
PART III
Item 10. Directors and Executive Officers of the Registrant.
Item 11. Executive Compensation.
Item 12. Security Ownership of Certain Beneficial Owners and Management.

Item 13. Certain Relationships and Related Transactions.
The information required by Items 10 through 13 are incorporated by reference from the registrant's definitive proxy statement pursuant to general instruction \(G(3)\), with the exception of the executive officers section of Item 10, which is included in Item 1 of this Form \(10-\mathrm{K}\). The registrant will file with the Commission a definitive proxy statement pursuant to Regulation 14A by April 30, 1999.

PART IV
Item 14. Exhibits, Financial Statement Schedules, and Reports on Form 8-K.
(a) The financial statements filed as part of this report are listed in the index to financial statements on page 25 .

All financial statement schedules are omitted because of the absence of the conditions under which they are required or because the required information is included in the financial statements or the notes thereto.
(b) Reports on Form 8-K:

The company filed a report on Form 8-K dated December 16, 1998.
In a release dated December 16,1998 , the company announced that it expects fourth-quarter 1998 earnings to be below those in the same quarter last year. The new release also contained forward-looking statements relating to the fourth quarter of 1998 and full year 1999. The news release was attached as Exhibit 99 to the Form 8-K.
(c) Exhibits:

Incorporated by Reference:
(3) Restated certificate of incorporation and bylaws, amended to and including amendments of May 12, 1987.

Exhibit (3) to
Form 10-Q
for period ended
June 30, 1987.

Restated certificate of incorporation, as amended as of May 13, 1997.

Bylaws, as amended as of November 11, 1996.
(4) Instruments defining the rights of security holders, including debentures:
(a) common stock.
(b) medium-term notes.
(10) Material contracts, management remuneration
(a) management stock ownership program.
(b) profit sharing plan, performance unit plan and other compensation arrangements.

June 30, 1997.

Form 8-K dated November 20, 1996.

\section*{Exhibit (3) above.}

Registration No. 33-48089
on Form S-3.
Form 8-K dated

Exhibit 4 of
Registration No. 333-30689
on Form S-8.
Written description contained
in issuer's proxy statement
for the 1999 annual
shareholders' meeting.

Reference (pages)
Form \(10-\mathrm{K}\)

Submitted herewith:
(12) Calculation of ratio of earnings to fixed charges. 51
(21) Subsidiaries of the registrant. 52
(23) Consent of experts. 53
(24) Power of attorney. 54
(27) Financial data schedule for the year ended December 31, 1998 (EDGAR filing only).

\section*{SIGNATURES}

Pursuant to the requirements of Section 13 of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MINNESOTA MINING AND MANUFACTURING COMPANY

By /s/ Giulio Agostini Giulio Agostini, Senior Vice President Principal Financial and Accounting Officer February 11, 1999

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on February 11 , 1999.
Signature Title

Livio D. DeSimone
Chairman of the Board and
Chief Executive Officer, Director
\begin{tabular}{ll} 
Ronald O. Baukol & Director \\
Edward A. Brennan & Director \\
Edward R. McCracken & Director \\
W. George Meredith & Director \\
Ronald A. Mitsch & Director \\
Allen E. Murray & Director \\
Rozanne L. Ridgway & Director \\
Frank Shrontz & Director \\
F. Alan Smith & Director \\
Louis W. Sullivan & Director
\end{tabular}

Roger P. Smith, by signing his name hereto, does hereby sign this document pursuant to powers of attorney duly executed by the other persons named, filed with the Securities and Exchange Commission on behalf of such other persons, all in the capacities and on the date stated, such persons constituting a majority of the directors of the company.

By /s/ Roger P. Smith
Roger P. Smith, Attorney-in-Fact
<TABLE>
\[
\begin{aligned}
& \text { MINNESOTA MINING AND MANUFACTURING COMPANY } \\
& \text { AND SUBSIDIARIES } \\
& \text { CALCULATION OF RATIO OF EARNINGS TO FIXED CHARGES } \\
& \text { (Dollars in millions) } \\
& \begin{array}{rrrrr}
1998 & 1997 & 1996 & 1995 & 1994 \\
------ & ------ & ------ & ------ & ------ \\
\langle C\rangle & <C\rangle & <C> & <C\rangle & <C\rangle
\end{array}
\end{aligned}
\]
<CAPTION>
<S>
\begin{tabular}{l} 
Income from continuing operations \\
before income taxes, \\
minority interest and \\
extraordinary loss*
\end{tabular}\(\quad \$ 1,952 \quad \$ 3,440 \quad \$ 2,479 \quad \$ 2,168 \quad \$ 2,011\)

Add:
\begin{tabular}{|c|c|c|c|c|c|}
\hline Interest on debt & 139 & 94 & 79 & 102 & 70 \\
\hline Interest component of the ESOP benefit expense & 29 & 32 & 34 & 37 & 39 \\
\hline Portion of rent under operating leases representative of the interest component & 41 & 41 & 46 & 51 & 46 \\
\hline Less: & & & & & \\
\hline Equity in undistributed income of 20-50 percent owned companies & 4 & 3 & - & 1 & 2 \\
\hline TOTAL EARNINGS AVAILABLE & & & & & \\
\hline FOR FIXED CHARGES & 157 & 604 & 638 & 357 & \\
\hline
\end{tabular}

FIXED CHARGES
Interest on debt
\begin{tabular}{l} 
Interest component of the ESOP \\
benefit expense
\end{tabular}
\begin{tabular}{l} 
Portion of rent under operating \\
leases representative of \\
the interest component
\end{tabular}

TOTAL FIXED CHARGES

\section*{MINNESOTA MINING AND MANUFACTURING COMPANY} AND CONSOLIDATED SUBSIDIARIES

PARENT AND SUBSIDIARIES
\begin{tabular}{|c|c|c|}
\hline \multicolumn{3}{|l|}{<CAPTION>} \\
\hline & & Percentage of \\
\hline & & Voting Securities \\
\hline & Organized Under & \(r\) Beneficially Owned \\
\hline Name of Company & Laws of & by Registrant \\
\hline <S> & <C> & <C> \\
\hline \multicolumn{3}{|l|}{Registrant:} \\
\hline \multicolumn{3}{|l|}{Minnesota Mining and Manufacturing Company Delaware} \\
\hline \multicolumn{3}{|l|}{Consolidated subsidiaries of the registrant:} \\
\hline Dyneon LLC & Delaware & 54 \\
\hline Eastern Heights Bank & Minnesota & 99 \\
\hline 3M Unitek Corporation & California & 100 \\
\hline 3M Argentina S.A.C.I.F.I.A. & Argentina & 100 \\
\hline 3M Australia Pty. Limited & Australia & 100 \\
\hline 3M Oesterreich GmbH & Austria & 100 \\
\hline 3M Belgium S.A./N.V. & Belgium & 100 \\
\hline Seaside Insurance Limited & Bermuda & 100 \\
\hline 3M do Brasil Limitada & Brazil & 100 \\
\hline 3M Canada Inc. & Canada & 100 \\
\hline 3M China Limited & China & 100 \\
\hline \(3 \mathrm{M} \mathrm{A} / \mathrm{S}\) & Denmark & 100 \\
\hline Suomen 3M Oy & Finland & 100 \\
\hline 3M France, S.A. & France & 100 \\
\hline 3M Deutschland GmbH & Germany & 100 \\
\hline 3M Hong Kong Limited & Hong Kong & 100 \\
\hline 3M Italia Finanziaria S.p.A. & Italy & 100 \\
\hline Sumitomo 3M Limited & Japan & 50 \\
\hline 3M Health Care Limited & Japan & 75 \\
\hline 3M Korea Limited & Korea & 100 \\
\hline 3M Mexico, S.A. de C.V. & Mexico & 100 \\
\hline Corporate Services B.V. & Netherlands & 100 \\
\hline 3 M Nederland B.V. & Netherlands & 100 \\
\hline 3M (New Zealand) Limited & New Zealand & 100 \\
\hline 3 M Norge A/S & Norway & 100 \\
\hline 3 M Puerto Rico, Inc. & Puerto Rico & 100 \\
\hline 3M Singapore Private Limited & Singapore & 100 \\
\hline 3M South Africa (Proprietary) Limited & South Africa & 100 \\
\hline 3M Espana, S.A. & Spain & 100 \\
\hline 3M Svenska AB & Sweden & 100 \\
\hline 3M (East) A.G. & Switzerland & 100 \\
\hline 3M (Schweiz) A.G. & Switzerland & 100 \\
\hline 3M Taiwan Limited & Taiwan & 100 \\
\hline 3M Thailand Limited & Thailand & 100 \\
\hline 3M United Kingdom Holdings P.L.C. & United Kingdom & 100 \\
\hline 3M Venezuela, S.A. & Venezuela & 100 \\
\hline \multicolumn{3}{|l|}{<FN>} \\
\hline \multicolumn{3}{|l|}{<F1>} \\
\hline NOTE: Subsidiary companies excluded from considered in the aggregate, would not subsidiary.
</F1> & the above l constitute a & listing, if significant \\
\hline
\end{tabular}

\section*{CONSENT TO INCORPORATION BY REFERENCE}

We consent to the incorporation by reference in the Registration Statements of Minnesota Mining and Manufacturing Company on Form S-8 (Registration Nos. 33-14791, 33-49842, 33-58767, 333-26957, 333-30689 and 333-30691) and Form S-3 (Registration No. 33-48089), of our report dated February 8, 1999, on our audits of the consolidated financial statements of Minnesota Mining and Manufacturing Company and Subsidiaries as of December 31, 1998 and 1997, and for each of the three years in the period ended December 31, 1998, which report is included in this Annual Report on Form 10-K.
\[
\begin{aligned}
& \text { /s/ PricewaterhouseCoopers LLP } \\
& \text { PricewaterhouseCoopers LLP }
\end{aligned}
\]

St. Paul, Minnesota
February 11, 1999

\section*{POWER OF ATTORNEY}

KNOW ALL MEN BY THESE PRESENTS, That the undersigned directors and the Principal Financial and Accounting Officer of MINNESOTA MINING AND MANUFACTURING COMPANY, a Delaware corporation, hereby constitute and appoint Livio D. DeSimone, Giulio Agostini, John J. Ursu, Roger P. Smith, Janet L. Yeomans and Gregg M. Larson or any of them, their true and lawful attorneys-in-fact and agents, and each of them with full power to act without the others, for them and in their name, place, and stead, in any and all capacities, to do any and all acts and things and execute any and all instruments which said attorneys and agents may deem necessary or desirable to enable MINNESOTA MINING AND MANUFACTURING COMPANY to comply with the Securities Exchange Act of 1934, as amended, and any rules, regulations, and requirements of the Securities and Exchange Commission in respect thereof, in connection with the filing with said Commission of its annual report on Form 10-K for the fiscal year ended December 31, 1998, including specifically, but without limiting the generality of the foregoing, power and authority to sign the name of MINNESOTA MINING AND MANUFACTURING COMPANY, and the names of the undersigned directors and Principal Financial and Accounting Officer to the Form \(10-\mathrm{K}\) and to any instruments and documents filed as part of or in connection with said Form \(10-\mathrm{K}\) or amendments thereto; and the undersigned hereby ratify and confirm all that said attorneys and agents shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned have subscribed these presents this 8th day of February, 1999.
/s/ Livio D. DeSimone
Livio D. DeSimone
Chairman of the Board and
Chief Executive Officer, Director
/s/ Ronald O. Baukol
Ronald O. Baukol, Director
/s/ Edward A. Brennan
Edward A. Brennan, Director
/s/ Edward R. McCracken
Edward R. McCracken, Director
/s/ W. George Meredith W. George Meredith, Director
/s/ Ronald A. Mitsch
Ronald A. Mitsch, Director
/s/ Giulio Agostini
Giulio Agostini
Senior Vice President
Principal Financial Officer
Principal Accounting Officer
/s/ Allen E. Murray
Allen E. Murray, Director
/s/ Rozanne L. Ridgway Rozanne L. Ridgway, Director
/s/ Frank Shrontz
Frank Shrontz, Director
/s/ F. Alan Smith
F. Alan Smith, Director
/s/ Louis W. Sullivan
Louis W. Sullivan, Director
<TABLE> <S> <C>
<ARTICLE> 5
<LEGEND>
THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM
THE CONSOLIDATED STATEMENT OF INCOME AND CONSOLIDATED BALANCE SHEET
AND RELATED NOTES AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO
SUCH CONSOLIDATED FINANCIAL STATEMENTS AND NOTES.
</LEGEND>
<MULTIPLIER> 1,000,000
\begin{tabular}{ll}
\(<\mathrm{S}>\) & \(<\mathrm{C}>\) \\
\(<\) PERIOD-TYPE \(>\) & \(12-\mathrm{MOS}\)
\end{tabular}
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<PERIOD-END> DEC-31-1998
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237
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<TOTAL-ASSETS> 14,153
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139
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<INCOME-TAX> 685
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\(\begin{array}{lr}\text { <EPS-PRIMARY> } & 2.17\end{array}\)
<EPS-DILUTED> 2.88
</TABLE>```

