UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K
[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR $15(\mathrm{~d})$ OF THE
SECURITIES EXCHANGE ACT OF 1934
For the year ended December 31, 1997

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: (612) 733-1110
SECURITIES REGISTERED PURSUANT TO SECTION $12(\mathrm{~b})$ OF THE ACT: Name of each exchange on which registered Title of each class
mon Stock, Par Value $\$ .50$ Per Share $\quad$ New York Stock Exchange Pacific Exchange
Chicago Stock Exchange
Note: The common stock of the registrant is also traded on the Amsterdam Stock Exchange, Swiss stock exchanges and the Tokyo 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 (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 $\$ 83.50$ per share as reported on the New York Stock ExchangeComposite Index on January 30, 1998, was $\$ 33.7$ billion.

Shares of common stock outstanding at January 31, 1998: 404,042,820.
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 1998 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 50 pages.
The exhibit index is set forth on page 45.

MINNESOTA MINING AND MANUFACTURING COMPANY
FORM 10-K
For the Year Ended December 31, 1997
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" includes Minnesota Mining and Manufacturing Company and subsidiaries unless the context otherwise indicates.

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
$3 M$ 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, 1997, the company employed 75,639 people.
Business Segments
Financial information and other disclosures relating to 3M's two business segments and 3M's operations in various geographic areas are provided in the Notes to Consolidated Financial Statements. Effective with year-end 1998, the company will adopt Statement of Financial Accounting Standards (SFAS) No. 131, "Disclosure about Segments of an Enterprise and Related Information." The company is reviewing the requirements of this statement and believes that it will change, to some degree, the nature and extent of its current business segment disclosure. This statement does not impact the basic consolidated financial statements; it affects the presentation of segment information in the Notes to Consolidated Financial Statements and this item of Form 10-K.

3M's two business sectors 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 sectors 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 sectors.

Industrial and Consumer Sector: This sector provides pressure-sensitive adhesives, specialty tapes, coated and nonwoven abrasives, specialty chemicals, electronic and electrical products, and telecommunications products. This sector participates in the following markets: Industrial Markets; Automotive and Chemical Markets; Electro and Communications Markets; and Consumer and Office Markets.

The Industrial Markets businesses manufacture and market a wide variety of highperformance and general-purpose pressure-sensitive tapes, as well as specialty products. Major product categories 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; and labels and other materials for identifying and marking durable goods. Other products include coated abrasives for grinding, conditioning and finishing a wide range of surfaces; finishing compounds; and products for maintaining and repairing vehicles.

The Automotive and Chemical Markets businesses' 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. Major chemical products include protective chemicals for furniture, fabrics and paper products; firefighting agents; fluoroelastomers for seals, tubes and gaskets in engines; engineering fluids; and high-performance fluids used in the manufacture of computer chips and for electronic cooling and lubricating of computer hard disk drives. Other products include natural and color-coated mineral granules for asphalt shingles. These businesses also serve as a major resource for other 3 M divisions, supplying specialty chemicals, adhesives and films used in the manufacture of many 3 M products.

The Electro and Communications Markets businesses provide products for the electronic, electrical, telecommunication, and visual communication fields. Electronic and electrical products include packaging and interconnection devices; insulating materials, including pressure-sensitive 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.

Major products in the Consumer and Office Markets businesses include Scotch brand Tapes; Post-it brand Note products, including memo pads, labels, stickers, pop-up notes and dispensers; home care products, including Scotch-Brite brand Scouring Products, O-Cel-O brand Sponges and Scotchgard brand Fabric Protectors; energy control products, such as window insulation kits; nonwoven abrasive materials for floor maintenance and commercial cleaning; floor mattings; and a wide range of home improvement products, including surface-preparation and wood-finishing materials, and filters for furnaces and air conditioners.

Life Sciences Sector: This sector produces products that contribute to health and safety for people around the world. The Life Sciences Sector's major technologies include pressure-sensitive adhesives, substrates, extrusion and coating, nonwoven materials, specialty polymers and resins, optical systems, drug delivery systems, and electro-mechanical devices. On August 15, 1997, the company sold National Advertising Company, an outdoor and mall advertising subsidiary that was part of this sector. This sector participates in the following markets: Medical Markets; Pharmaceuticals, Dental and Personal Care Markets; and Traffic and Personal Safety Markets.

The Medical Markets businesses produce a broad range of medical supplies, devices and equipment. Medical supplies include tapes, dressings, surgical drapes and masks, biological indicators, orthopedic casting materials and electrodes. Medical devices and equipment include stethoscopes, heart-lung machines, sterilization equipment, blood gas monitors, and powered orthopedic instruments. These businesses also develop and market health information systems.

The Pharmaceuticals, Dental and Personal Care Markets businesses serve the pharmaceutical and dental markets, as well as manufacturers of disposable diapers. Pharmaceuticals include ethical drugs and drug-delivery systems. Among ethical pharmaceuticals are analgesics, anti-inflammatories and cardiovascular and respiratory products. Drug-delivery systems include metered-dose inhalers, as well as transdermal skin patches and related components. Dental products include dental restoratives, adhesives, impression materials, temporary crowns, infection control products, and orthodontic brackets and wires. Personal Care products include a broad line of closures for disposable diapers.

The Traffic and Personal Safety Markets businesses serve the following markets: traffic control materials, commercial graphics, and occupational health and safety. In traffic control materials, reflective sheetings are used on highway signs, vehicle license plates, construction workzone devices, and trucks and other vehicles. In commercial graphics, 3 M supplies equipment, films, inks and related products used to produce graphics for vehicles and signs. Major occupational health and safety products include maintenance-free and reusable respirators, plus personal monitoring systems. These businesses also market a variety of other products, including spill-control sorbents, Thinsulate brand and Lite Loft brand Insulations, traffic control devices, electronic surveillance products, reflective materials for personal safety, and films for protection against counterfeiting.

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 $3 \mathrm{M}^{\prime} \mathrm{s}$ position in the marketplace and to its growth. $3 M$ has 245 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, 3M has 215 sales offices and distribution centers.

Research, Patents and Raw Materials
Research and product development constitute an important part of 3M's activities. Products resulting from research and development have been major drivers of 3M's growth. Research and development spending totaled $\$ 1.002$ billion, $\$ 947$ million and $\$ 883$ million in 1997 , 1996 and 1995 , respectively.

Corporate research laboratories support research efforts of division and sector laboratories. These corporate labs also engage in research not directly related to existing 3 M 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 1997. 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)
<CAPTION>
\begin{tabular}{|c|c|c|c|c|}
\hline Name & Age & Present Position & Position & Other Positions Held During 1993-1997 \\
\hline <S> & <C> & <C> & <C> & <C> \\
\hline Livio D. DeSimone & 61 & Chairman of the Board and Chief Executive Officer & 1991 & \\
\hline Ronald A. Mitsch & 63 & Vice Chairman of the Board and Executive Vice President, Industrial and Consumer Markets and Corporate Services & 1998 & \begin{tabular}{l}
Vice Chairman of the Board and \\
Executive Vice President, \\
Industrial and Consumer Sector \\
and Corporate Services, 1996-1998 \\
Executive Vice President, \\
Industrial and Consumer Sector \\
and Corporate Services, 1991-1995
\end{tabular} \\
\hline J. Marc Adam & 59 & Vice President, Marketing & 1995 & Group Vice President, Medical Products Group, 1991-1995 \\
\hline Giulio Agostini & 63 & Senior Vice President, Finance and Administrative Services & 1993 & Senior Vice President, Finance, 1991-1993 \\
\hline Ronald O. Baukol & 60 & Executive Vice President, International Operations & 1995 & Vice President, Asia Pacific, Canada and Latin America, 1994-1995 Vice President, Asia Pacific, 1991-1994 \\
\hline John W. Benson & 53 & Executive Vice President, Health Care Markets & 1998 & \begin{tabular}{l}
Group Vice President, Industrial \\
Markets Group, 1996-1997 \\
Group Vice President, Abrasive, Chemical and Film Products Group, 1995 Division Vice President, Abrasive Systems Division, 1995 \\
Managing Director, 3M United Kingdom PLC, and Managing Director, 3M Ireland Ltd., 1992-1995
\end{tabular} \\
\hline William E. Coyne & 61 & Senior Vice President, Research and Development & 1996 & \begin{tabular}{l}
Vice President, Research and \\
Development, 1994-1995 \\
President and General Manager, \\
3M Canada, Inc., 1990-1994.
\end{tabular} \\
\hline M. Kay Grenz & 51 & 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
``` \\
\hline Charles E. Kiester & 61 & Senior Vice President, Engineering, Quality and Manufacturing Services & 1993 & Vice President, Engineering, Quality and Manufacturing Services 1990-1993 \\
\hline W. George Meredith & 54 & Executive Vice President, Corporate Services and Supply Chain Management & 1998 & Executive Vice President, Life Sciences Sector and Corporate Services, 1995-1997 Group Vice President, Pharmaceuticals, \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Raymond C. Richelsen 5 & & Executive Vice President, Transportation, Safety and Chemical Markets & 1998 & Group Vice President, Traffic and Personal Safety Markets Group, 1997 Vice President and General Manager, National Advertising Company and Media Networks, Inc., 1996 Group Vice President, Audio and Video Products Group, 1995-1996 Group Vice President, Memory Technologies Group, 1991-1995 \\
\hline John J. Ursu 5 & 58 & Senior Vice President, Legal Affairs and General Counsel & 1997 & \begin{tabular}{l}
Vice President, Legal Affairs and General Counsel, 1993-1996 \\
General Counsel, 1992-1993
\end{tabular} \\
\hline
\end{tabular}
</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 69 manufacturing facilities in 24 states. Internationally, 3 M has 215 sales offices and distribution centers. The company operates 96 manufacturing and converting facilities in 44 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 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: This paragraph 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, 1997, the company had been named as a defendant, often with multiple co-defendants, in 7,547 lawsuits and 285 claims in various courts, all seeking damages for personal injuries from allegedly defective breast implants. These claims and lawsuits purport to represent 26,193 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. 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 a discretionary appeal from the decertification is pending in the Fourth Circuit Court of Appeals for Louisiana.

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. Appeals related to the Revised Settlement Program are pending.

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 as supplemented now includes both foreign and 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 foreign claimants and 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 domestic claimants with 3 M implants. Post $8 / 84$ McGhan implant benefits are payable by the company, Union Carbide Corporation and McGhan Medical Corporation.

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, will not be affected by the number of class members electing 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. 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) or who are current foreign claimants will range from $\$ 10,000$ to $\$ 50,000$. Benefits to foreign registrants other than current foreign claimants will be developed by the Foreign Claimants Committee in consultation with the Court.

The company's obligations to fund Long-Term Benefits for eligible claimants with 3 M implants are cancelable if certain provisions of the Revised Settlement Program are disapproved on appeal. Pending appeal, the company will pay LongTerm Benefits to eligible claimants, providing it receives appropriate releases. The company's obligations to fund any benefits for claimants with only Post 8/84 McGhan implants are currently suspended pending appeals and will be canceled if any of certain provisions are disapproved on appeal. In either event, the other benefits provided under the Revised Settlement Program would still be payable to any claimant with 3 M implants who elected to participate in the program.

As of the date of this filing, the company believes that approximately $88 \%$ of 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, 1997, the company has paid $\$ 162$ 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 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 1996, the company increased its estimate of the minimum probable liabilities and associated expenses to approximately $\$ 991$ million. This amount represents the company's best estimate of the cost and expense of the Revised Settlement Program and the cost and expense of resolving opt-out claims. After subtracting payments of $\$ 699$ million as of December 31, 1997, for defense and other costs and settlements with litigants and claimants, the company had accrued liabilities of $\$ 292$ 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 as scheduled by the court.

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 occurrence-based coverage (before 1986) into the period of claimsmade 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 are pending. Court options include clarification, further trial followed by additional rulings, or certification for interlocutory (while the case is still pending) appeal.

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, 1997, the company had accrued receivables for insurance recoveries of $\$ 666$ 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 estimates of the probable liabilities, associated expenses and probable insurance recoveries related to the breast implant claims are 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 of 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 estimates of probable liabilities (including associated expenses) and the probable amount of insurance recoveries. Accordingly, the company is not able to estimate its potential 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.

Item 4. Submission of Matters to a Vote of Security Holders.
None in the quarter ended December 31, 1997.
Part II

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

At January 31, 1998, there were 138,282 shareholders of record.
3M's stock is listed on the New York Stock Exchange, Pacific Exchange, Chicago Stock Exchange, Amsterdam Stock Exchange, Swiss stock exchanges and Tokyo Stock Exchange.

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: & 1997 & 1996 & 1995 & 1994 & 1993 \\
\hline <S> & <C> & <C> & <C> & <C> & <C> \\
\hline Net Sales & \$15,070 & \$14,236 & \$13,460 & \$12,148 & \$11,053 \\
\hline Income from Continuing Operations & . \(2,121 *\) & 1,516 & 1,306** & 1,207 & 1,133 \\
\hline \multicolumn{6}{|l|}{Per Share of Common Stock:} \\
\hline Continuing Operations - Basic. & .5.14* & 3.63 & 3.11** & 2.85 & 2.61 \\
\hline Continuing Operations - Diluted & .5.06* & 3.59 & 3.09** & 2.84 & 2.59 \\
\hline Cash Dividends Declared and Paid. & \$ 2.12 & \$ 1.92 & \$ 1.88 & \$ 1.76 & \$ 1.66 \\
\hline Ratio of Earnings to Fixed Charges. & . \(21.58 *\) & 16.59 & 12.41** & 13.96 & 15.93 \\
\hline \multicolumn{6}{|l|}{At December 31:} \\
\hline Total Assets \#..................... & . \(\$ 13,238\) & \$13,364 & \$14,183 & \$13,068 & \$11,795 \\
\hline Long-Term Debt (excluding portion due within one year).................... & \[
\ldots 1,015
\] & 851 & 1,203 & 1,031 & 796 \\
\hline
\end{tabular}
<FN>
<F1>
* 1997 includes a gain on the sale of National Advertising Company of \(\$ 803\) million ( \(\$ 495\) million after-tax, or \(\$ 1.20\) per basic share and \(\$ 1.18\) per diluted share).
<F2>
**1995 includes a restructuring charge of \(\$ 79\) million ( \(\$ 52\) million after-tax, or 12 cents per basic and diluted share). <F3>
\# Periods prior to 1996 include net assets of discontinued operations.
<F4>
Each of the above items are discussed in the Notes to Consolidated Financial
Statements
</FN>
</TABLE>
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Operating Results
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. As a result, these businesses
are presented as discontinued operations in the financial statements and notes. The following discussion represents continuing operations and basic earnings per share, except where otherwise noted.

Sales in 1997 rose 5.9 percent to $\$ 15.070$ billion. This followed increases of 5.8 percent in 1996 and 10.8 percent in 1995. Sales growth in both 1997 and 1996 was held back by the stronger U.S. dollar.

In the United States, sales totaled $\$ 7.242$ billion, up about 9 percent from 1996. Volume rose 9 percent, well above the growth of the U.S. economy. Internationally, sales increased about 3 percent to $\$ 7.828$ billion. Volume rose 13 percent, the fourth consecutive year of double-digit gains abroad. The stronger U.S. dollar reduced international sales by about 9 percent. Selling prices worldwide were basically flat, following a 1 percent increase in 1996.

<TABLE>
Components of Sales Change <CAPTION>
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline & \multicolumn{3}{|c|}{1997} & \multicolumn{3}{|c|}{1996} \\
\hline & U.S. & Intl. & Worldwide & U.S. & Intl. & Worldwide \\
\hline <S> & <C> & <C> & <C> & <C> & <C> & <C> \\
\hline Volume & 9\% & 13\% & 11\% & 6\% & 10\% & 8\% \\
\hline Price & 0 & (1) & 0 & 1 & 1 & 1 \\
\hline Translation & - & (9) & (5) & - & (6) & (3) \\
\hline Total & 9\% & 3\% & 6\% & 7\% & 5\% & 6\% \\
\hline
\end{tabular}
</TABLE>
Cost of goods sold was 57.0 percent of sales, up slightly from 1996. In both 1997 and 1996, gross margins benefited from volume growth, productivity gains and 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 25.3 percent of sales, down from 25.6 percent in both 1996 and 1995. Solid volume gains, together with continued emphasis on cost control and productivity improvement, had a positive effect on this spending.

<TABLE>
<CAPTION>
(Percent of sales)
<S>
\begin{tabular}{lll}
\begin{tabular}{ll}
1997 & 1996
\end{tabular} & \begin{tabular}{l} 
<C \\
<C \(>\)
\end{tabular} & <C \(\rangle\) \\
57.0 & 56.9 & 57.3 \\
25.3 & 25.6 & 25.6
\end{tabular}

Cost of goods sold
Selling, general and administrative expenses
</TABLE>
In 1995 , 3 M recorded one-time, pre-tax charges of $\$ 653$ million related to the spin-off of the data storage and imaging businesses and the discontinuance of the audio and video business. Of this amount, $\$ 79$ million related to restructuring in continuing operations and is reported separately on the Consolidated Statement of Income. The remaining charges related to discontinued operations. These charges and discontinued operations are discussed in the Notes to Consolidated Financial Statements.

Operating income totaled $\$ 2.675$ billion, up 7.4 percent from 1996. Negative currency effects reduced profits by 7.6 percent. Operating income was 17.7 percent of sales, up from 17.5 percent in 1996 and 17.1 percent (excluding the $\$ 79$ million restructuring charge) in 1995.

In the United States, operating income increased 15 percent and profit margins improved by almost one percentage point. In 1996, excluding the 1995 restructuring charge, U.S. operating income increased 13 percent and profit margins improved by nearly one percentage point.

Internationally, operating income rose about 1 percent and profit margins declined by three-tenths of a percentage point from 1996. Negative currency effects reduced international profits by 15 percent and profit margins by about 1.1 percentage points. In 1996, excluding the 1995 restructuring charge, operating income rose about 5 percent and profit margins were the same as in 1995. Currency effects reduced international profits in 1996 by 9 percent.

The company estimates that currency effects reduced worldwide operating income by $\$ 189$ million in 1997 and by $\$ 118$ million in 1996.

<TABLE>
<CAPTION>
\begin{tabular}{llll} 
(Percent of sales) & 1997 & 1996 & 1995 \\
<S \(>\) & \(<\mathrm{C}\rangle\) & \(<\mathrm{C}\rangle\) & \(<\mathrm{C}\rangle\) \\
Operating income & 17.7 & 17.5 & 17. * \(^{*}\)
\end{tabular}
<EN>
<F1>
* Excludes restructuring charge

Interest expense was \(\$ 94\) million, compared with \(\$ 79\) million in 1996 and \(\$ 102\) million in 1995. The increase in 1997 was due to several factors, including slightly higher debt balances and higher interest rate resets on certain longterm floating-rate issues. The decrease in 1996 reflected lower interest rates and a reduction in debt.

Investment and other income was \(\$ 56\) million, compared with \(\$ 67\) million in 1996 and \(\$ 49\) million in 1995. Lower levels of cash and securities resulted in less interest income in 1997. Higher cash and securities balances and improved investment results drove the 1996 increase.

In 1997, the company realized a gain on the sale of National Advertising Company of \(\$ 803\) million ( \(\$ 495\) million after-tax). This sale is discussed further in the Notes to Consolidated Financial Statements. The effect of this gain on 3M's statement of income and tax rate is summarized below.
<TABLE>
Supplemental Consolidated Statement of Income Information (Unaudited)
Year ended December 31, 1997
<CAPTION>
\begin{tabular}{lclc}
\begin{tabular}{l} 
(Millions, except \\
per-share amounts) \\
<C>
\end{tabular} & \begin{tabular}{l} 
Excluding \\
Divestiture \\
Income before income taxes
\end{tabular} & \begin{tabular}{l} 
Gain on \\
Divestiture \\
and minority interest
\end{tabular} & \begin{tabular}{l} 
Reported \\
Total \\
<S>
\end{tabular} \\
\begin{tabular}{ll} 
Provision for income taxes & \(\$ 2,637\)
\end{tabular} & \(\$ 803\) & \(\$ 3,440\) \\
Effective tax rate & 933 & 308 & 1,241 \\
Minority interest & 75.48 & \(38.4 \%\) & \(36.1 \%\) \\
Net income & \(\$ 1,626\) & -- & 78 \\
Earnings per share - basic & \(\$ 3.94\) & \(\$ 1.20\) & \(\$ 2,121\) \\
Earnings per share - diluted & \(\$ 3.88\) & \(\$ 1.18\) & \(\$ 5.14\) \\
\hline
\end{tabular}
</TABLE>
3M's total effective tax rate for 1997 was 36.1 percent. Excluding the divestiture, the worldwide effective income tax rate was 35.4 percent, down slightly from 1996 and 1995. 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).

Income from continuing operations totaled \(\$ 2.121\) billion, or \(\$ 5.14\) per share ( \(\$ 1.626\) billion, or \(\$ 3.94\) per share, excluding the gain on divestiture),
compared with \(\$ 1.516\) billion, or \(\$ 3.63\) per share, in 1996 . Excluding the gain on divestiture, per-share income was up 8.5 percent. In 1995, income from continuing operations totaled \(\$ 1.306\) billion, or \(\$ 3.11\) per share ( \(\$ 1.358\) billion, or \(\$ 3.23\) per share, excluding the 1995 restructuring charge). In 1996, excluding the 1995 restructuring charge, earnings per share from continuing operations increased 12.4 percent.

Net income totaled \(\$ 2.121\) billion, or \(\$ 5.14\) per share \((\$ 1.626\) billion, or \(\$ 3.94\) per share, excluding the gain on divestiture), compared with \(\$ 1.526\) billion, or \(\$ 3.65\) per share, in 1996. Excluding the gain on divestiture, per-share net income was up 7.9 percent. In 1995, net income before one-time charges totaled \(\$ 1.390\) billion, or \(\$ 3.31\) per share.

In 1997 and 1996, changes in the value of the U.S. dollar reduced income from continuing operations by an estimated \(\$ 112\) million and \(\$ 65\) million, or 27 cents per share and 15 cents per share, respectively. In 1995, currency effects increased income from continuing operations by an estimated \(\$ 45\) million, or 10 cents per share. These estimates include the effect of translating profits from local currencies into U.S. dollars; the impact of currency fluctuations on the transfer of goods 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 \(\$ 720\) million, a 14 percent increase from 1996. Return on invested capital was 18.0 percent, an increase of seven-tenths of a percentage point from 1996. Economic profit equals after-tax operating income, less a charge for the operating capital employed in 3M's businesses. Return on invested capital is after-tax operating income divided by average operating capital.

At December 31, 1997, employment totaled 75,639 people, an increase of 1,350 from year-end 1996. Sales per employee in local currencies increased about 10 percent. During the preceding three years, 3M's productivity increased an average of about 9 percent a year.

Performance by Business Sector
Financial information and other disclosures relating to 3M's two business segments is provided in the Notes to Consolidated Financial Statements.

Industrial and Consumer Sector:
This sector represented 63 percent of sales and 62 percent of operating income in 1997. Sales totaled \(\$ 9.484\) billion, up 6.2 percent from 1996. Operating income increased 7.2 percent to \(\$ 1.662\) billion. Operating income was 17.5 percent of sales.

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

Life Sciences Sector:
This sector represented 37 percent of sales and 40 percent of operating income in 1997. Sales totaled \(\$ 5.496\) billion, up 4.9 percent from 1996. Operating income decreased 2.3 percent to \(\$ 1.066\) billion. Operating income was 19.4 percent of sales.

This sector produces innovative products that contribute to health and safety for people around the world. In health care, this sector produces medical and surgical supplies, health care information systems, pharmaceuticals and drugdelivery systems, and dental products. In the safety area, this sector produces reflective materials for traffic safety and respirators for worker protection. This sector also produces closures for disposable diapers and equipment and materials for premium indoor and outdoor graphics. On August 15, 1997, the company sold National Advertising Company, an outdoor and mall advertising subsidiary that was part of this sector. National Advertising Company had annual sales of about \(\$ 200\) million and operating income of about \(\$ 35\) million. The gain on this sale is not reflected in the sector's operating income results.

Performance by Geographic Area
Financial information relating to \(3 M\) operations in various geographic areas is provided in the Notes to Consolidated Financial Statements.

United States (48\% of sales, 48\% of operating income)
In the United States, sales rose about 9 percent, driven by solid volume growth and productivity gains. Operating income was 17.8 percent of sales, up nearly one percentage point from 1996.

Europe and Middle East ( \(24 \%\) of sales, \(16 \%\) of operating income)
Unit sales in Europe and the Middle East increased about 11 percent, well above the rate of economic growth in the area. Sales totaled \(\$ 3.6\) billion. Selling prices declined slightly, while currency translation reduced sales by almost 10 percent.

In Western Europe, faster commercialization of new products and a market-focused approach to customers are driving 3 M growth. Volume rose about 10 percent, with good gains in most countries. In Eastern Europe and the Middle East, the company continues to grow rapidly, with particularly strong gains in Turkey, Poland, Hungary and Russia.

Asia Pacific ( \(18 \%\) of sales, \(23 \%\) of operating income)
Continuing a record of solid gains, unit sales in the Asia Pacific area increased about 12 percent in 1997 . Selling prices decreased slightly, while currency translation reduced sales by about 10 percent. In Japan, home of 3M's largest international company, volume rose about 8 percent, well above the country's economic growth rate. 3M's growth in Japan is benefiting from a strong flow of new products.

Unit sales in Asia, excluding Japan, rose 23 percent in 1997. 3M companies in Singapore, China, Hong Kong and India paced growth. Toward the end of 1997, volume growth was tempered by economic and financial turmoil in several countries. Although such turmoil may continue to affect volume growth in the near-term, the company is confident in the long-term economic strength of the region.

Latin America, Canada and Africa ( \(10 \%\) of sales, \(13 \%\) of operating income)
In Latin America, unit sales increased 18 percent, continuing a record of strong gains. Freer trade in Latin America is enabling 3M to add significantly to product lines and to deliver goods more efficiently. Near the end of 1997, the company felt the effects of economic slowing in Brazil. With 3M's long experience and strong management in Latin America, the company expects to minimize the effects of economic disruptions on growth and maintain or enhance market positions.

In Canada, unit sales increased about 6 percent, driven by new products, keyaccount relationships and a sharp customer focus. In Africa, volume increased
about 5 percent, led by industrial and health care products.
Financial Position
3M's financial condition remained strong in 1997, and working capital remained well-controlled. The accounts receivable index was 58 days, down two days from year-end 1996. The company's key inventory index was 3.8 months, unchanged from year-end 1996. The current ratio was 1.5 , down from 1.8 at year-end 1996.

Total debt was \(\$ 2.514\) billion, up from \(\$ 1.968\) billion at year-end 1996. Total debt was 30 percent of total capital, compared with 24 percent in 1996 . Of debt outstanding at the end of \(1997, \$ 378\) million represented a guarantee of debt of the 3M 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 \(10-\mathrm{K}\). 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: This paragraph 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 foreign currency options to hedge against the effect of exchange rate fluctuations on cash flows denominated in non-U.S. dollars.

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, 1997, 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 1997, cash flows provided by operating activities of continuing operations totaled \(\$ 1.818\) billion, down from \(\$ 2.041\) billion in 1996. 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 were helped by net inflows of \(\$ 35\) million relating to breast implant litigation, compared with net outflows of \(\$ 275\) million in 1996. In both 1997 and 1996, cash flows were helped by solid operating results and good asset management.

Capital spending totaled \(\$ 1.406\) billion, an increase of about 27 percent from 1996. This followed increases of 2 percent in 1996 and 12 percent in 1995. These investments are helping to meet growing global demand for \(3 M\) products and to increase manufacturing efficiency.

Cash used for acquisitions and investments totaled \(\$ 40\) million, \(\$ 263\) million and \(\$ 49\) million in 1997, 1996 and 1995, respectively. The increase in 1996 primarily was due to acquisitions in the health care field and the purchase of the minority interest in 3 M Korea.

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 \(\$ 51\) million, \(\$ 62\) million and \(\$ 82\) million in 1997, 1996 and 1995, respectively.

Stockholder dividends increased 10.4 percent to \(\$ 2.12\) a share. Cash dividend payments totaled \(\$ 876\) million. 3 M has paid dividends since 1916. In February 1998, the Board of Directors increased the quarterly dividend on 3 M common stock to 55 cents a share, equivalent to an annual dividend of \(\$ 2.20\) a share, a 3.8 percent increase from 1997. This marks the 40 th consecutive yearly increase.

Repurchases of 3 M common stock totaled \(\$ 1.693\) billion in 1997 , compared with \(\$ 532\) million in 1996 and \(\$ 351\) million in 1995 . 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 November 1997, the Board of Directors authorized the repurchase of up to 25 million of the company's shares. This share repurchase authorization extends through December 31, 1998. Under a preceding authorization, the company purchased about 17.5 million shares.

The company's strong credit rating provides ready and ample access to funds in global capital markets. In February 1998, the company issued \(\$ 330\) million of \(30-\) year, 6.375 percent debentures. The company's net effective all-in borrowing cost is 6.46 percent. This issuance exhausted 3 M's \(\$ 600\) million shelf registration with the Securities and Exchange Commission. At year-end 1997, the company had available short-term lines of credit totaling about \(\$ 300\) 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-K.

Future Outlook
3 M expects solid sales and earnings growth again in 1998, even though the strong U.S. dollar will continue to affect the company, particularly in the first half of the year. Based on exchange rates at the end of January 1998, currency effects could reduce 1998 earnings by more than 25 cents per share, with the largest impact expected during the first quarter of 1998.

The company is not able to project what all the consequences of the turmoil in Asia may be. Entering 1998, the company is monitoring business conditions closely and is prepared to make adjustments in costs, pricing and investments as appropriate. Overall, the company does not expect any contributions to earnings growth from Asia in 1998. In Brazil, business activity slowed in late 1997, and a sluggish economy is expected during the first half of 1998.

Strong market positions, innovative new products and successful customersatisfaction efforts should set the stage for continued solid volume gains. The company's results also will benefit from strong emphasis on productivity improvement, cost control and asset management.

3 M has an 8 percent annual productivity improvement objective, as measured by sales growth per employee in local currencies. Employment levels within the company are expected to be consistent with this objective.

Through continued repurchases, the company expects to reduce shares outstanding to 390 million by year-end 1998. The company estimates total debt could increase from an average of about \$2 billion in 1997 to more than \(\$ 3\) billion, on average, in 1998. This strategy may add up to \(\$ 70\) million in interest expense (before taxes) in 1998. The company does not anticipate a significant change in its tax rate in 1998.

Capital spending is expected to remain at about \(\$ 1.4\) billion dollars in 1998, assuming economic conditions and demand for 3 M products are not stronger than expected.

Impact of the Year 2000 Issue
The company recognizes the importance of the Year 2000 issue and has been giving high priority to it. In November 1996, the company created a corporate-wide Year 2000 project team representing all business and staff units of the company. The team's objective is to ensure an uninterrupted transition into the Year 2000. The scope of the Year 2000 readiness effort includes software, hardware, electronic data interchange (EDI), manufacturing and lab equipment, environmental and safety systems, facilities, utilities, supplier readiness and \(3 M\) products with date-sensitivity. If necessary modifications and conversions are not made on a timely basis, the Year 2000 issue could have a material adverse effect on the operations of the company.

The company is utilizing both internal and external resources to remediate and test millions of lines of application software code. The target is to complete the most serious Year 2000 compliance issues for U.S. information systems by July 1998 and for international information systems by December 1998. The company expects to complete all other potential Year 2000 compliance issues by July 1999.

In addition to internal Year 2000 software and equipment remediation activities, the company is in contact with its suppliers and electronic commerce customers to assess their compliance. There can be no absolute assurance that there will not be a material adverse effect on the company if third parties do not convert their systems in a timely manner and in a way that is compatible with the company's systems. The company believes that its diligent actions with suppliers and customers will minimize these risks.

The vast majority of the company's products are not date-sensitive. The company is collecting information on current and discontinued date-sensitive products. This information is expected to be available to customers in mid-March 1998.

Through 1997, the company had expensed incremental costs of \(\$ 15\) million related to the Year 2000 issue. The total remaining incremental cost is estimated to be \(\$ 55\) million. 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 total cost for the Year 2000 issue includes estimated costs and time associated with interfacing with third parties' Year 2000 issues. These estimates are based on currently available information.

The company's current estimates of the amount of 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 derived utilizing multiple assumptions of future events including the continued availability of certain resources, third-party modification plans and implementation success, and other factors. New developments may occur that could affect the company's estimates of the amount of time and costs necessary to modify and test its 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 computer code and equipment, and (iii) the planning and modification success attained by 3M's business partners.

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" and other expressions which 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, particularly in Brazil and the Asia Pacific region; raw materials, including shortages and increases in the costs of key raw materials; impact of the Year 2000 issue (see discussion of the Year 2000 issue in Part I, Item 7 of this Form 10-K); and legal proceedings (see discussion of Legal Proceedings in Part I, Item 3 of this Form 10-K).

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

> Reference (pages)
> Form 10-K

Data submitted herewith:
Report of Independent Auditors ...................................... . . 23
Consolidated Statement of Income for the years ended December 31, 1997, 1996 and 1995 24

Consolidated Balance Sheet at December 31, 1997 and 1996 25

Consolidated Statement of Changes in Stockholders' Equity for the years ended December 31, 1997, 1996 and 1995
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Consolidated Statement of Cash Flows
    for the years ended December 31,
    1997, 1996 and 199527
```

\section*{Report of Independent Auditors}

To the Stockholders of Minnesota Mining and Manufacturing Company:

We have audited the consolidated financial statements of Minnesota Mining and Manufacturing Company and Subsidiaries as listed in Item 8 of this Form \(10-\mathrm{K}\). These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Minnesota Mining and Manufacturing Company and Subsidiaries as of December 31, 1997 and 1996, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 1997, in conformity with generally accepted accounting principles.
/s/ COOPERS \& LYBRAND L.L.P.

COOPERS \& LYBRAND L.L.P.

St. Paul, Minnesota
February 9, 1998, except for
the last paragraph under Debt
in the Notes to Consolidated
Financial Statements, as to which
the date is February 18, 1998.
<TABLE>
Consolidated Statement of Income
Minnesota Mining and Manufacturing Company and Subsidiaries
<CAPTION>
\begin{tabular}{llrl} 
Years ended December 31 & 1997 & 1996 & 1995 \\
(Amounts in millions, except per-share amounts) & & \(<C>\) & \(<C>\)
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Operating expenses} \\
\hline Cost of goods sold & 8,580 & 8,099 & 7,720 \\
\hline Selling, general and administrative expenses & 3,815 & 3,646 & 3,440 \\
\hline Restructuring charge & -- & -- & 79 \\
\hline Total & 12,395 & 11,745 & 11,239 \\
\hline Operating income & 2,675 & 2,491 & 2,221 \\
\hline \multicolumn{4}{|l|}{Other income and expense} \\
\hline Interest expense & 94 & 79 & 102 \\
\hline Investment and other income - net & (56) & (67) & (49) \\
\hline Gain on divestiture - net & (803) & -- & -- \\
\hline Total & (765) & 12 & 53 \\
\hline \multicolumn{4}{|l|}{Income from continuing operations before income taxes and minority interest} \\
\hline Provision for income taxes & 1,241 & 886 & 785 \\
\hline Minority interest & 78 & 77 & 77 \\
\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
Minnesota Mining and Manufacturing Company and Subsidiaries
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{<CAPTION>} \\
\hline Years ended December 31 & 1997 & 1996 & 1995 \\
\hline (Dollars in millions, except per-share amounts) & & & \\
\hline <S> & <C> & <C> & <C> \\
\hline \multicolumn{4}{|l|}{Common stock} \\
\hline Balance at beginning of year & \$ 296 & \$ 296 & \$ 296 \\
\hline Transfer to capital in excess of par value & (60) & -- & -- \\
\hline Balance at end of year & 236 & 296 & 296 \\
\hline \multicolumn{4}{|l|}{Capital in excess of par value} \\
\hline Balance at beginning of year & -- & -- & -- \\
\hline Transfer from common stock & 60 & -- & \\
\hline Balance at end of year & 60 & -- & -- \\
\hline \multicolumn{4}{|l|}{Retained earnings} \\
\hline Balance at beginning of year & 8,756 & 9,164 & 9,039 \\
\hline Net income & 2,121 & 1,526 & 976 \\
\hline Dividends paid (per share: \$2.12, \$1.92, \$1.88) & (876) & (803) & (790) \\
\hline Special dividend of Imation Corp. common stock & -- & (1,008) & -- \\
\hline Stock option and benefit plans & (153) & (123) & (61) \\
\hline Balance at end of year & 9,848 & 8,756 & 9,164 \\
\hline \multicolumn{4}{|l|}{Unearned compensation - ESOP} \\
\hline Balance at beginning of year & (412) & (437) & (460) \\
\hline Amortization & 33 & 25 & 23 \\
\hline Balance at end of year & (379) & (412) & (437) \\
\hline \multicolumn{4}{|l|}{Cumulative translation - net} \\
\hline Balance at beginning of year & (178) & (102) & (163) \\
\hline Translation and other adjustments & (369) & (122) & 61 \\
\hline Adjustment for Imation Corp. special dividend & -- & 46 & -- \\
\hline Balance at end of year & (547) & (178) & (102) \\
\hline \multicolumn{4}{|l|}{Debt and equity securities, unrealized gain(loss) - net} \\
\hline Balance at beginning of year & 15 & 16 & (3) \\
\hline Fair value adjustments & (7) & (1) & 19 \\
\hline Balance at end of year & 8 & 15 & 16 \\
\hline \multicolumn{4}{|l|}{Treasury stock, at cost} \\
\hline Balance at beginning of year & \((2,193)\) & \((2,053)\) & \((1,975)\) \\
\hline Reacquired stock (millions of shares: 18.7, 7.6, 5.9) & \((1,693)\) & (532) & (351) \\
\hline \multicolumn{4}{|l|}{Issuances pursuant to stock option and} \\
\hline \begin{tabular}{l}
Balance at end of year \\
(millions of shares: 67.3, 55.2, 53.3)
\end{tabular} & \((3,300)\) & \((2,193)\) & \((2,053)\) \\
\hline Stockholders' equity - net & \$ 5,926 & \$ 6,284 & \$ 6,884 \\
\hline \multicolumn{4}{|l|}{<EN>} \\
\hline \multicolumn{4}{|l|}{<F1>} \\
\hline \multicolumn{4}{|l|}{Common stock (\$.50 par value per share; without par value at December 31, 1996} \\
\hline \multicolumn{4}{|l|}{and 1995) of 1 billion shares is authorized, with \(472,016,528\) shares issued in} \\
\hline \multicolumn{4}{|l|}{\multirow[t]{3}{*}{1997, 1996 and 1995. Preferred stock, without par value, of 10 million shares
is authorized but unissued.
<F2>}} \\
\hline & & & \\
\hline & & & \\
\hline \multicolumn{4}{|l|}{\multirow[t]{2}{*}{The accompanying Notes to Consolidated Financial Statements are an integral part of this statement.
</FN>}} \\
\hline & & & \\
\hline \multicolumn{4}{|l|}{</TABLE>} \\
\hline \multicolumn{4}{|l|}{<TABLE>} \\
\hline \multicolumn{4}{|l|}{Consolidated Statement of Cash Flows} \\
\hline \multicolumn{4}{|l|}{Minnesota Mining and Manufacturing Company and Subsidiaries} \\
\hline Years ended December 31 & 19 & 1996 & 1995 \\
\hline \multicolumn{4}{|l|}{(Dollars in millions)} \\
\hline <S> & <C> & <C> & <C> \\
\hline \multicolumn{4}{|l|}{Cash Flows from Operating Activities} \\
\hline Net income & \$ 2,1 & \$1,526 & \$ 976 \\
\hline Less income (loss) from discontinued operations & & 10 & (330) \\
\hline Income from continuing operations & 2,1 & 1,516 & 1,306 \\
\hline \multicolumn{4}{|l|}{Adjustments to reconcile income from continuing operations to net cash provided by operating activities} \\
\hline Gain on divestiture - net & & 5) & -- \\
\hline Income tax paid relating to divestiture & & 8) & -- \\
\hline Implant litigation - net & & (275) & (112) \\
\hline Depreciation & & 825 & 795 \\
\hline Amortization & & 58 & 64 \\
\hline Accounts receivable & & (170) & (90) \\
\hline Inventories & & 5) (75) & (51) \\
\hline Other - net & & 162 & 23 \\
\hline
\end{tabular}

Net cash provided by continuing operations
\begin{tabular}{rrr}
1,818 & 2,041 & 1,935 \\
\((112)\) & 170 & 325 \\
1,706 & 2,211 & 2,260
\end{tabular}

Net cash provided by operating activities
\begin{tabular}{rcc}
1,706 & 2,211 & 2,260 \\
& & \\
\((1,406)\) & \((1,109)\) & \((1,088)\) \\
38 & 66 & 54 \\
\((40)\) & \((263)\) & \((49)\) \\
1,000 & -- & -- \\
51 & 62 & 82 \\
-- & \((17)\) & \((207)\)
\end{tabular}

Cash Flows from Investing Activities
Capital expenditures
Proceeds from sale of property, plant and equipment
Acquisitions and other investments
Proceeds from National Advertising Company divestiture
Proceeds from other divestitures and investments
Discontinued operations - net
\((357)(1,261)(1,208)\)

Cash Flows from Financing Activities
Change in short-term debt - net
\begin{tabular}{ccc}
705 & \((76)\) & \((41)\) \\
\((565)\) & \((15)\) & \((156)\) \\
337 & 173 & 223 \\
\((1,693)\) & \((532)\) & \((351)\) \\
355 & 268 & 214 \\
\((876)\) & \((803)\) & \((790)\) \\
\((22)\) & 79 & -- \\
& & \\
\((1,759)\) & \((906)\) & \((901)\) \\
57 & 54 & 37 \\
\((353)\) & 98 & 188 \\
583 & 485 & 297 \\
& & \\
\(\$ 230\) & \(\$\) & 583
\end{tabular}\(\$\)\begin{tabular}{l} 
\$85
\end{tabular}

Cash and cash equivalents at end of year



<FN>
<F1>
The accompanying Notes to Consolidated Financial Statements are an integral part of this statement.
</FN>
</TABLE>
Notes to Consolidated Financial Statements
Accounting Policies
Consolidation: All significant subsidiaries are consolidated. Unconsolidated subsidiaries and affiliates are included on the equity basis.

Reclassifications: Certain reclassifications have been made to December 31, 1996, balance sheet amounts to conform to the current year presentation.

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 year-end 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 the results of operations 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 claims,
goodwill, patents, other intangibles, deferred taxes, and other noncurrent assets. Goodwill generally is amortized on a straight-line basis over the periods benefited, principally in the range of 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 on a straight-line basis over its estimated useful life. 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 income.

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

Derivatives: 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.

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

Earnings per share: Effective December 31, 1997, the company adopted Statement of Financial Accounting Standards (SFAS) No. 128, "Earnings Per Share," and has disclosed basic and diluted earnings per share for all periods presented in accordance with this standard. A dilutive effect on earnings results from the assumed exercise of stock options outstanding under the GESPP and the MSOP. Effective July 1997, GESPP options are exercised on the last business day of each month of grant, resulting in no dilutive effect.

Comprehensive income: Effective in 1998, the company will adopt SFAS No. 130, "Reporting Comprehensive Income." Due to the significant impact of currency translation in 1997 and 1996, comprehensive income will be lower than net income for those years. The impact of translation and other adjustments is disclosed in the Consolidated Statement of Changes in Stockholders' Equity.

Business segments: Effective at year-end 1998, the company will adopt SFAS No. 131, "Disclosure about Segments of an Enterprise and Related Information." The company is reviewing the requirements of this statement and believes that it will change, to some degree, the nature and extent of its current business segment disclosure. This statement does not impact the basic consolidated financial statements; it affects the presentation of segment information in the Notes to Consolidated Financial Statements.

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 $\$ 1.20$ per basic share and $\$ 1.18$ per diluted share. National Advertising Company had annual sales of about $\$ 200$ million and operating income of about $\$ 35$ million.

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. 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
the close of business on 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 report Imation and the audio and video business as discontinued operations.

Income from operations of the discontinued businesses for 1995 includes results through November 30, 1995. Income from operations of discontinued businesses included interest expense allocations (based on the ratio of net assets of discontinued operations to consolidated net assets plus debt) of $\$ 15$ million in 1995.

The 1995 loss on disposal of $\$ 373$ million included the estimated future results of operations through the estimated date of spin-off or closure. Major components of the loss on disposal include $\$ 300$ million of severance costs and $\$ 265$ million of asset write-downs, net of deferred income taxes of $\$ 232$ million. The loss on disposal calculation included $\$ 13$ million of interest expense. Net cash provided by discontinued operations in 1995 differs from the loss from discontinued operations principally due to two factors -- the loss on disposal for which no cash had been expended at December 31, 1995, and depreciation. The $\$ 10$ million 1996 gain on disposal reflects final adjustments to the company's 1995 estimated loss on disposal.

<TABLE>
Discontinued Operations
<CAPTION>
\begin{tabular}{llll} 
(Millions) & 1997 & 1996 & 1995 \\
\(<\) S & \(<\mathrm{C}>\) & \(<\mathrm{C}>\) & \(<\mathrm{C}>\) \\
Net sales & \(\$--\) & \(\$--\) & \(\$ 2,645\) \\
Income from operations, net of & & & \\
income taxes of \$23 million & -- & -- & 43 \\
Gain (loss) on disposal, net of income taxes & -- & 10 & \((373)\) \\
Total discontinued operations, net of income taxes & \(\$--\) & \(\$ 10\) & \(\$(330)\) \\
Per share - basic & \(\$--\) & \(\$ .02\) & \(\$(.79)\) \\
Per share - diluted & \(\$--\) & \(\$ .02\) & \(\$(.78)\)
\end{tabular}
</TABLE>
Restructuring Charge
The company recorded a restructuring charge of $\$ 79$ million in 1995 related to the spin-off of the data storage and imaging businesses and the discontinuance of the audio and video business. Major components of this charge included $\$ 50$ million of employee severance costs and $\$ 17$ million related to the write-down of certain assets to net realizable value. In early 1997, about 1,000 people, mainly in corporate service functions in the United States and Europe, left 3M through voluntary separation programs. Substantially all payments related to employee separations were made as of December 31, 1997.

<TABLE>
Supplemental Statement of Income Information
<CAPTION>
(Millions)
\begin{tabular}{lll}
1997 & 1996 & 1995 \\
<C> & <C \(>\) & <C \(>\) \\
\(\$ 1,002\) & \(\$ 947\) & \(\$ 883\) \\
471 & 459 & 423
\end{tabular}

Research and development costs
\(471 \quad 459 \quad 423\) Advertising and merchandising costs
</TABLE>
<TABLE>
Supplemental Balance Sheet Information
<CAPTION>
(Millions)
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{2}{|r|}{1997} & \multicolumn{2}{|r|}{1996} \\
\hline \multicolumn{2}{|l|}{<C>} & \multicolumn{2}{|l|}{<C>} \\
\hline \$ & 2,523 & \$ & 2,609 \\
\hline & 89 & & 105 \\
\hline \$ & 2,434 & \$ & 2,504 \\
\hline \$ & 1,293 & \$ & 1,195 \\
\hline & 605 & & 591 \\
\hline & 501 & & 478 \\
\hline \$ & 2,399 & \$ & 2,264 \\
\hline \multirow[t]{3}{*}{\$} & 254 & \$ & 419 \\
\hline & 134 & & 161 \\
\hline & 470 & & 394 \\
\hline \$ & 858 & \$ & 974 \\
\hline \multirow[t]{3}{*}{\$} & 181 & \$ & 68 \\
\hline & 179 & & 195 \\
\hline & 500 & & 483 \\
\hline \$ & 860 & \$ & 746 \\
\hline
\end{tabular}

<FN>
**Primarily demand deposits and, as such, the carrying amount approximates fair
value.
</TABLE>
Supplemental Cash Flow Information
Income tax payments and interest payments included in the Consolidated Statement

<TABLE>
<CAPTION>
</TABLE>
Income tax payments in 1997 include $\$ 308$ million related to the gain on the sale of National Advertising Company.

In connection with the spin-off of the data storage and imaging businesses, 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, 3 M 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 that is being paid in installments over the period 1997 through 1999.

Debt

<TABLE>
<CAPTION>

</TABLE>
<TABLE>
<CAPTION>
\begin{tabular}{lllll} 
Long-Term Debt & \begin{tabular}{l} 
Effective \\
Interest Rate* \\
(Millions)
\end{tabular} & \begin{tabular}{l} 
Maturity \\
Date \\
<S>
\end{tabular} & <C>
\end{tabular}
long term debt
<F1>
*Effective interest rates reflect the effects of interest rate and currency swaps at December 31, 1997.
</FN>
</TABLE>
Debt with fixed interest rates includes the ESOP, Canadian Eurobond 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. Other borrowings include floating rate notes and industrial bond issues in the United States and other borrowings by 3M's international companies.

Maturities of long-term debt for the next five years are: 1998, $\$ 163$ million; 1999, $\$ 146$ million; 2000, $\$ 53$ million; 2001, $\$ 477$ million; and 2002, $\$ 64$ 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.

In February 1998, the company issued $\$ 330$ million of 30 -year, 6.375 percent debentures. The company's net effective all-in borrowing cost is 6.46 percent. This issuance exhausted $3 \mathrm{M}^{\prime} \mathrm{s}$ \$600 million shelf registration with the Securities and Exchange Commission. At year-end 1997, the company had available short-term lines of credit totaling about $\$ 300$ 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 set forth 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 exposure of the company 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, 1997 and 1996.

<TABLE>
<CAPTION>
Notional Amounts
\begin{tabular}{lll} 
(Millions) & 1997 & 1996 \\
<S> & \(<C>\) & \(<C>\) \\
Interest rate swaps & \(\$ 514\) & \(\$ 829\) \\
Currency swaps & 452 & 426
\end{tabular}
</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 non-U.S. dollars. 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, 1997 and 1996, were not material.

<TABLE>
<CAPTION>
Face Amounts
\begin{tabular}{lcc} 
(Millions) & 1997 & 1996 \\
<S> & \(<\mathrm{C}>\) & \(<\mathrm{C}>\) \\
Forward contracts & \(\$ 966\) & \(\$ 869\) \\
Options purchased & 472 & -- \\
Options sold & 123 & --
\end{tabular}
</TABLE>
The company engages in foreign currency hedging activities to reduce exchange risks arising from cross-border cash flows denominated in non-U.S. dollars. The company operates on a global basis, generating more than half its revenues from international customers and engaging in substantial product and financial transfers among geographic areas. Major forward contracts at December 31, 1997, were denominated in Dutch guilders, Japanese yen, Belgian francs, German marks and Spanish pesetas.

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 1997, $\$ 138$ million in 1996 and $\$ 154$ million in 1995. The table below sets forth minimum payments under operating leases with noncancelable terms in excess of one year, as of December 31, 1997.

<TABLE>
<CAPTION>
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline & & & & & & After & \\
\hline (Millions) & 1998 & 1999 & 2000 & 2001 & 2002 & 2002 & Total \\
\hline <S> & <C> & <C> & <C> & <C> & <C> & <C> & <C> \\
\hline Minimum lease payments & \$60 & \$47 & \$33 & \$23 & \$18 & \$64 & \$245 \\
\hline
\end{tabular}
</TABLE>
Income Taxes
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 information below 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) | 1997 | 1996 | 1995 |
| :--- | :--- | ---: | ---: |
| $<$ S $>$ | $<\mathrm{C}>$ | $<\mathrm{C}>$ | $<\mathrm{C}>$ |
| United States | $\$ 2,607$ | $\$ 1,534$ | $\$ 1,274$ |
| International | 833 | 945 | 894 |
| $\quad$ Total | $\$ 3,440$ | $\$ 2,479$ | $\$ 2,168$ |

</TABLE>

<TABLE>
Provision for Income Taxes
<CAPTION>
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline (Millions) & \multicolumn{2}{|r|}{1997} & \multicolumn{2}{|r|}{1996} & \multicolumn{2}{|r|}{1995} \\
\hline <S> & \multicolumn{2}{|l|}{<C>} & \multicolumn{2}{|l|}{<C>} & \multicolumn{2}{|l|}{<C>} \\
\hline \multicolumn{7}{|l|}{Currently payable} \\
\hline Federal & \$ & 823 & \$ & 331 & \$ & 346 \\
\hline State & & 127 & & 63 & & 58 \\
\hline International & & 370 & & 405 & & 380 \\
\hline \multicolumn{7}{|l|}{Deferred} \\
\hline Federal & & (57) & & 76 & & 21 \\
\hline State & & (5) & & 7 & & 2 \\
\hline International & & (17) & & 4 & & (22) \\
\hline Total & & ,241 & \$ & 886 & \$ & 785 \\
\hline
\end{tabular}
</TABLE>
<TABLE>
Components of Deferred Tax Assets and Liabilities
<CAPTION>
\begin{tabular}{lcr} 
(Millions) & 1997 & 1996 \\
<S> & <C> & <C> \\
Accruals currently not deductible & & \\
Benefit costs & \(\$ 247\) & \(\$ 235\) \\
Severance and other restructuring costs & -- & 89 \\
Product and other liabilities & 343 & 431 \\
Product and other insurance claims & \((404)\) & \((487)\) \\
Accelerated depreciation & \((243)\) & \((304)\)
\end{tabular}
\begin{tabular}{lrr} 
Other & 260 & 221 \\
Net deferred tax asset & \(\$ 203\) & \(\$ 185\) \\
\(</\) TABLE \(>\) & &
\end{tabular}

At December 31, 1997, approximately \(\$ 2.606\) 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 & 1997 & 1996 & 1995 \\
<S & \(<\mathrm{C}>\) & \(<\mathrm{C}>\) & \(<\mathrm{C}>\) \\
Statutory U.S. tax rate & \(35.0 \%\) & \(35.0 \%\) & \(35.0 \%\) \\
State income taxes - net & 2.3 & 1.8 & 1.8 \\
International income taxes - net & .2 & .5 & .5 \\
All other - net & \((1.4)\) & \((1.5)\) & \((1.1)\) \\
Effective worldwide tax rate & \(36.1 \%\) & \(35.8 \%\) & \(36.2 \%\)
\end{tabular}

Effective worldwide tax rate
\(36.1 \% \quad 35.8 \% \quad 36.2 \%\)
</TABLE>

Business Segments
3M's businesses are organized into two sectors: Industrial and Consumer, and Life Sciences. These sectors 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. 3 M is not dependent on any single product or market.

Financial information relating to the company's business sectors for the years ended December 31, 1997, 1996 and 1995 appears below. 3 M is an integrated enterprise characterized by substantial intersector cooperation, cost allocations and inventory transfers. Therefore, management does not represent that these sectors, if operated independently, could earn the operating income shown.
<TABLE>
<CAPTION>
\begin{tabular}{llllll} 
(Millions) & <S> & \begin{tabular}{l} 
Industrial \\
and Consumer \\
<C>
\end{tabular} & \begin{tabular}{l} 
Life \\
Sciences \\
<C>
\end{tabular} & \begin{tabular}{l} 
Corporate and \\
Unallocated \\
<C>
\end{tabular} & \begin{tabular}{l} 
Total \\
Company
\end{tabular} \\
Ket sales & 1997 & \(\$ 9,484\) & \(\$ 5,496\) & \(\$\) & <C>
\end{tabular}
<FN>
<F1>
* Operating income includes unallocated corporate overhead expenses, some of which historically were allocated to discontinued operations. Operating income for 1995 includes a \(\$ 79\) million restructuring charge.
<F2>
** Identifiable assets for business sectors primarily include accounts receivable; inventory; net property, plant and equipment; and other miscellaneous assets. Assets included in the Corporate and Unallocated column principally are cash and cash equivalents; other securities; insurance receivables; deferred income taxes; certain investments and other assets; net assets of discontinued operations; and certain unallocated property, plant and equipment.
<F3>
Certain prior period amounts have been reclassified to conform to the current year presentation.
</EN>
</TABLE>
<TABLE>
Business Segments (continued)
<CAPTION>
\begin{tabular}{lllr} 
(Millions) & 1997 & 1996 & 1995 \\
\(<\) S> & \(<\mathrm{C}>\) & \(<\mathrm{C}>\) & \(<\mathrm{C}>\) \\
Tape products & \(\$ 2,080\) & \(\$ 2,096\) & \(\$ 2,042\) \\
Abrasive products & 1,326 & 1,270 & 1,220 \\
Automotive and chemical products & 1,647 & 1,460 & 1,328 \\
Connecting and insulating products & 1,739 & 1,564 & 1,470 \\
Consumer and office products & 2,603 & 2,460 & 2,272 \\
Health care products & 2,476 & 2,356 & 2,221 \\
Safety and personal care products & 1,355 & 1,301 & 1,220 \\
All other products & 1,844 & 1,729 & 1,687 \\
Total & \(\$ 15,070\) & \(\$ 14,236\) & \(\$ 13,460\)
\end{tabular}
</TABLE>
Geographic Areas
Information in the table below is presented on the basis the company uses to manage the business. Export sales and certain income and expense items are reported in the geographic area where the final sales to customers are made, rather than where the transactions originate.

```
<TABLE>
```

<CAPTION>

<EN>
<F1>
*Net assets of discontinued operations are reported in the Eliminations and Other column.
</FN>
</TABLE>

Retirement Plans
3 M 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. Plan assets are invested in common stocks, fixed-income securities, real estate and other investments.

Retirement Plans (continued)
The company's 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. In addition, a number of plans are maintained by deposits with insurance companies. The charge to income relating to these plans was $\$ 153$ million in 1997, \$173 million in 1996 and $\$ 152$ million in 1995.

Under its U.S. pension plan, $3 M$ has elected to retain the benefit obligations (and related plan assets) applicable to service provided to 3 M by U.S. Imation employees prior to the date of distribution of Imation common stock to 3M stockholders. As a result of the distribution, 3M's U.S. pension plan was revalued as of July 1, 1996, to reflect certain plan changes, the effects of the restructuring and discontinued operations, and a change in the discount rate to 7.75 percent. The effects of these changes were not material.

## <TABLE>

<CAPTION>

| Net Pension Cost | U.S. Plan |  |  | International Plans |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Millions) | 1997 | 1996 | 1995 | 1997 | 1996 | 1995 |
| <S> | <C> | <C> | <C> | <C> | <C> | <C> |
| Service cost | \$115 | \$121 | \$ 96 | \$ 67 | \$ 77 | \$ 86 |


| Interest cost | 354 | 332 | 304 | 96 | 94 | 92 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Return on plan assets - actual | $(896)$ | $(584)$ | $(846)$ | $(150)$ | $(87)$ | $(124)$ |
| Net amortization and deferral | 514 | 230 | 532 | 53 | $(10)$ | 39 |
| Discontinued operations | -- | -- | $(14)$ | -- | -- | $(13)$ |
| $\quad$ Net pension cost | $\$ 87$ | $\$ 99$ | $\$ 72$ | $\$ 66$ | $\$ 74$ | $\$ 80$ |

</TABLE>

<TABLE>
<CAPTION>
Funded Status of Pension Plans
\begin{tabular}{lccl}
\(\quad\) U.S. & Plan & International & Plans \\
1997 & 1996 & 1997 & 1996 \\
\(<\mathrm{C}>\) & <C \(>\) & <C \(>\) & <C \(>\) \\
\(\$ 5,411\) & \(\$ 4,642\) & \(\$ 1,458\) & \(\$ 1,369\)
\end{tabular}
<S>
Plan assets at fair value
Accrued(prepaid) pension cost
\begin{tabular}{rrrr}
\(\$ 5,411\) & \(\$ 4,642\) & \(\$ 1,458\) & \(\$ 1,369\) \\
33 & 77 & \((22)\) & \((4)\) \\
\(\$ 5,444\) & \(\$ 4,719\) & \(\$ 1,436\) & \(\$ 1,365\)
\end{tabular}

Amount provided for future benefits
\(\$ 5,444 \quad \$ 4,719\) \$1,436 \$1,365
Actuarial present value
Vested benefit obligation
\begin{tabular}{|c|c|c|c|}
\hline 4,386 & 3,939 & 1,046 & 1,007 \\
\hline 499 & 436 & 87 & 110 \\
\hline \$4,885 & \$4,375 & \$1,133 & \$1,117 \\
\hline 559 & 344 & 303 & 248 \\
\hline 5,392 & 4,800 & 1,435 & 1,439 \\
\hline \$ 19 & \$ (158) & \$ 23 & \$ (70) \\
\hline (74) & (112) & 22 & 23 \\
\hline 22 & 193 & (23) & 51 \\
\hline \$ (33) & \$ ( 77) & \$ 22 & \$ \\
\hline
\end{tabular}

Amount provided for future benefits
less accumulated benefit obligation
Projected benefit obligation
Plan assets at fair value less
projected benefit obligation
Unrecognized net transition
(asset) obligation
Other unrecognized items
(Accrued) prepaid pension cost
</TABLE>
<TABLE>
<CAPTION>
Assumptions at Year-End
<S>
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{3}{|c|}{U.S. Plan} & \multicolumn{2}{|l|}{International} & Plans \\
\hline 1997 & 1996 & 1995 & 1997 & 1996 & 1995 \\
\hline <C> & <C> & <C> & <C> & < C > & <C> \\
\hline 7.00\% & 7.50\% & 7.00\% & 6.47\% & 7.10\% & 7.10\% \\
\hline 4.85\% & 4.85\% & 5.00\% & 4.35\% & 5.60\% & 5.38\% \\
\hline 9.00\% & 9.00\% & 9.00\% & 7.03\% & 7.68\% & 7.59\% \\
\hline
\end{tabular}

Compensation rate increase
Long-term rate of return on assets
\(7.03 \% \quad 7.68 \%\)
<FN>
<F1>
Net pension cost is determined using assumptions at the beginning of the year (adjusted July 1, 1996, for 1996 net pension cost). Funded status is determined using assumptions at year-end.
</FN>
</TABLE>
Other Postretirement Benefits
The company provides health care and life insurance benefits for substantially all of its U.S. employees who reach retirement age while employed by the company. The company has set aside funds with an independent trustee for these postretirement benefits and makes periodic contributions to the plan. The trustee invests in common stocks and fixed-income securities. Employees outside the United States are covered principally by government-sponsored plans. The cost of company provided plans for these employees is not material.

3M has agreed to provide other postretirement benefits to certain U.S. Imation employees based on defined eligibility criteria. As a result of the distribution of Imation common stock to 3M stockholders, 3M's U.S. postretirement plans were revalued as of July 1, 1996, to reflect certain plan changes, the effects of the restructuring and discontinued operations, and a change in the discount rate to 7.75 percent. The effects of these changes were not material.

The table below shows the components of the net periodic postretirement benefit cost and a reconciliation of the funded status of the postretirement benefit plan for U.S. employees.

<TABLE>
Net Periodic Postretirement Benefit Cost
<CAPTION>
(Millions)
\begin{tabular}{lll}
1997 & 1996 & 1995 \\
\(<\mathrm{C}\rangle\) & <C \(\rangle\) & \(\langle\mathrm{C}\rangle\) \\
\(\$ 36\) & \(\$ 29\) & \(\$ 26\) \\
65 & 66 & 63 \\
\((38)\) & \((50)\) & \((76)\) \\
-- & 16 & 51 \\
-- & -- & \((11)\) \\
\(\$ 63\) & \(\$ 61\) & \(\$ 53\)
\end{tabular}
<S>
<C> <C>
Service cost \(\quad \$ 36 \quad\) \$ \(29 \quad \$ 26\)
Interest cost
(50) (76)

Return on plan assets - actual
\$ 61
\$ 53

Net amortization and deferral
Discontinued operations
Total
</TABLE>
<TABLE>
Funded Status of Postretirement Benefit Plan
<CAPTION>

| (Millions) | 1997 | 1996 |
| :--- | :---: | ---: |
| <S> | $<\mathrm{C}>$ | $<\mathrm{C}>$ |
| Fair value of plan assets | $\$ 482$ | $\$ 449$ |
| Accumulated postretirement benefit obligation | $\$ 425$ | $\$ 305$ |
| Retirees | 182 | 333 |
| Fully eligible active plan participants | 388 | 305 |
| Other active plan participants | $\$ 995$ | $\$ 943$ |
| Benefit obligation | $\$(513)$ | $\$(494)$ |
| Plan assets less benefit obligation | 36 | 29 |
| Adjustments and unrecognized items | $\$(477)$ | $\$(465)$ |

The company determines the accumulated postretirement benefit obligation and related benefit costs by applying relevant actuarial assumptions. The company expects its health care cost trend rate to slow from 6.7 percent in 1998 to 5.0 percent in 2004, after which the rate is expected to stabilize. The effect of a one percentage point increase in the assumed health care cost trend rate for each future year would increase the benefit obligation by $\$ 91$ million and the current year benefit expense by $\$ 12$ million. Other actuarial assumptions at December 31,1997 , include an expected long-term rate of return on plan assets of 9.0 percent (before taxes applicable to a portion of the return on plan assets), and a discount rate of 7.0 percent.

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 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 company's contributions under $401(k)$ employee savings plans. The ESOP borrowed $\$ 548$ million to purchase 15.4 million shares of the company's common stock, previously held in treasury. Because the company has guaranteed repayment of the ESOP debt, the debt and related unearned compensation are recorded in the Consolidated Balance Sheet. Total ESOP shares are considered to be shares outstanding for earnings per share calculations.

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. Shares are released for allocation to participants based on the ratio of the current year's debt service to the sum of total principal and interest payments over the life of the notes.

Annual expenses related to the ESOP generally represent total debt service on the notes, less dividends. These amounts are reported as an employee benefit expense. Unearned compensation, shown as a reduction of stockholders' equity, is reduced by the higher of principal payments or the cost of shares allocated.

Selected information related to the ESOP for the years ended December 31, 1997, 1996 and 1995 follows.

<TABLE>
ESOP Information
<CAPTION>
(Millions)
<S>
\begin{tabular}{lll}
1997 & 1996 & 1995 \\
\(\langle C\rangle\) & \(\langle C\rangle\) & \(\langle C\rangle\) \\
\(\$ 30\) & \(\$ 28\) & \(\$ 28\) \\
37 & 37 & 40 \\
32 & 34 & 37 \\
36 & 36 & 30
\end{tabular}
ividends on shares held by the ESO
Company contributions to the ESOP
Interest incurred on the ESOP's notes
36 36 30
Annual 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>
\begin{tabular}{lrrrr} 
ESOP Shares & \multicolumn{1}{c}{1997} & 1996 & 1995 \\
<S & <C> & <C> & <C> \\
Allocated & \(6,006,099\) & \(5,202,188\) & \(5,116,265\) \\
Committed to be released & 184,181 & 399,220 & -- \\
Unreleased & \(8,286,949\) & \(9,103,730\) & \(9,892,575\) \\
\(\quad\) Total & \(14,477,229\) & \(14,705,138\) & \(15,008,840\)
\end{tabular}
</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, all options are exercised on the last business day of each month of grant. Previously, options were exercised within 27 months from the date of grant.
<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 10,057 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 price were adjusted in 1996, resulting in no economic impact to participants or to the company.

| <TABLE> |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| <CAPTION> |  |  |  |  |  |  |
|  | 1997 |  | 1996 |  | 1995 |  |
|  |  | Exercise |  | Exercise |  | Exercise |
|  | Shares | Price* | Shares | Price* | Shares | Price* |
| <S> | <C> | <C> | <C> | <C> | <C> | <C> |
| Under option- |  |  |  |  |  |  |
| January 1 | 26,487,335 | \$52.61 | 23,974,715 | \$47.93 | 22,715,941 | \$44.82 |
| Granted | 5,598,761 | 91.25 | 5,810,480 | 65.54 | 4,300,298 | 59.21 |
| Imation Corp. |  | --- | 1,097,520 | 50.07 | (3,001, -- | --- |
| Exercised | $(5,241,804)$ | 46.99 | $(4,225,544)$ | 43.11 | $(3,001,292)$ | 40.56 |
| Canceled | $(12,440)$ | 91.70 | $(169,836)$ | 53.17 | $(40,232)$ | 47.25 |
| December 31 | 26,831,852 | \$59.75 | 26,487,335 | \$52.61 | 23,974,715 | \$47.93 |
| Options exercisable- |  |  |  |  |  |  |
| December 31 | 21,673,983 | \$52. 12 | 20,462,410 | \$49.54 | 20,219,581 | \$45.72 |
| Shares available for grant- |  |  |  |  |  |  |
| December 31 | 35,968,913 |  | $6,555,234$ |  | 13,323,715 |  |
| <FN> |  |  |  |  |  |  |
| <F1> |  |  |  |  |  |  |
| *Weighted average |  |  |  |  |  |  |
| </EN> |  |  |  |  |  |  |
| </TABLE> |  |  |  |  |  |  |

Management Stock Ownership Program (continued)
<TABLE>
Options Outstanding and Exercisable at December 31, 1997
<CAPTION>

|  | Options Outstanding |  |  | Options Exercisable |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Range of |  | Remaining |  |  |  |
| Exercise |  | Contractual | Exercise |  | Exercise |
| Prices | Shares | Life (months)* | Price* | Shares | Price* |
| <S> | <C> | <C> | <C> | <C> | < C > |
| \$28.30-47.00 | 7,088,750 | 43 | \$40.54 | 7,088,750 | \$40.54 |
| 48.00-62.00 | 8,994,934 | 81 | 54.08 | 8,994,934 | 54.08 |
| 63.00-103.45 | 10,748,168 | 109 | 77.17 | 5,590,299 | 63.67 |
| <EN> |  |  |  |  |  |
| <F1> |  |  |  |  |  |
| *Weighted average |  |  |  |  |  |
| </FN> |  |  |  |  |  |
| </TABLE> |  |  |  |  |  |

Stock-Based Compensation
No compensation cost has been recognized for the GESPP or the MSOP. Pro forma amounts based on the options' estimated fair value at the grant dates for awards under the GESPP and MSOP are presented below.
<TABLE>
Pro Forma Net Income and Earnings Per Share
<CAPTION>

| (Millions) | 1997 | 1996 | 1995 |
| :---: | :---: | :---: | :---: |
| <S> | <C> | <C> | <C> |
| Net income |  |  |  |
| As reported | \$2,121 | \$1,526 | \$ 976 |
| Pro forma | 2,032 | 1,439 | 911 |
| Earnings per share - basic |  |  |  |
| As reported | \$ 5.14 | \$ 3.65 | \$2.32 |
| Pro forma | 4.92 | 3.44 | 2.17 |
| Earnings per share - diluted |  |  |  |
| As reported | \$ 5.06 | \$ 3.62 | \$2.31 |
| Pro forma | 4.85 | 3.41 | 2.16 |
| </TABLE> |  |  |  |

The weighted average fair value per option granted during 1997, 1996 and 1995 was $\$ 13.67$, $\$ 10.37$ and $\$ 8.60$, respectively, for the GESPP, and $\$ 21.81$, $\$ 13.43$ and $\$ 12.48$, respectively, for the incentive MSOP grants. The weighted average fair value was calculated by using the fair value of each option grant on the date of grant. The fair value of GESPP options was based on the 15 percent purchase discount, and for MSOP options was calculated utilizing the BlackScholes option-pricing model and the assumptions that follow.

<TABLE>
<CAPTION>
\begin{tabular}{lccc} 
MSOP Assumptions & 1997 & 1996 & 1995 \\
<S> & <C \(\rangle\) & <C \(>\) & <C> \\
Risk-free interest rate & \(6.6 \%\) & \(6.4 \%\) & \(5.9 \%\) \\
Dividend growth rate & \(5.8 \%\) & \(4.3 \%\) & \(5.2 \%\) \\
Volatility & \(15.0 \%\) & \(14.2 \%\) & \(14.4 \%\) \\
Expected life (months) & 67 & 66 & 66
\end{tabular}
</TABLE>
The GESPP and MSOP stock options, if exercised, would have the following dilutive effect on shares outstanding for 1997,1996 and 1995 , respectively: 6.0 million, 3.9 million and 2.7 million shares. Effective July 1997, all GESPP options are exercised on the last business day of each month of grant, resulting in no 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|}
\hline & First & Second & & Third & & ourth & & Year \\
\hline <S> & <C> & <C> & \multicolumn{2}{|l|}{<C>} & \multicolumn{2}{|l|}{<C>} & \multicolumn{2}{|l|}{<C>} \\
\hline \multicolumn{9}{|l|}{Net sales} \\
\hline 1997 & \$ 3,714 & \$ 3,817 & \$ & 3,826 & \$ & 3,713 & & 5,070 \\
\hline 1996 & 3,468 & 3,522 & & 3,623 & & 3,623 & & 4,236 \\
\hline \multicolumn{9}{|l|}{Cost of goods sold} \\
\hline 1997 & \$ 2,089 & \$ 2,156 & \$ & 2,173 & \$ & 2,162 & \$ & 8,580 \\
\hline 1996 & 1,990 & 1,986 & & 2,069 & & 2,054 & & 8,099 \\
\hline \multicolumn{9}{|l|}{Income from continuing operations} \\
\hline 1997 & \$ 410 & \$ 418 & \$ & 927* & \$ & 366 & \$ & 2,121* \\
\hline 1996 & 362 & 381 & & 398 & & 375 & & 1,516 \\
\hline \multicolumn{9}{|l|}{Net income} \\
\hline 1997 & \$ 410 & \$ 418 & \$ & 927* & \$ & 366 & \$ & 2,121* \\
\hline 1996 & 362 & 381 & & 398 & & 385** & & 1,526** \\
\hline \multicolumn{9}{|l|}{Basic earnings per share - continuing operations} \\
\hline 1997 & \$ . 99 & \$ 1.01 & \$ & 2.25* & \$ & . 90 & \$ & 5.14* \\
\hline 1996 & . 87 & . 91 & & . 95 & & . 90 & & 3.63 \\
\hline \multicolumn{9}{|l|}{Basic earnings per share - net income} \\
\hline 1997 & \$ . 99 & \$ 1.01 & \$ & 2.25* & \$ & . 90 & \$ & 5.14* \\
\hline 1996 & . 87 & . 91 & & . 95 & & . 92** & & 3.65** \\
\hline \multicolumn{9}{|l|}{Diluted earnings per share - continuing operations} \\
\hline 1997 & \$ . 97 & \$ . 99 & \$ & 2.21* & \$ & . 89 & \$ & \(5.06 *\) \\
\hline 1996 & . 86 & . 90 & & . 94 & & . 89 & & 3.59 \\
\hline \multicolumn{9}{|l|}{Diluted earnings per share - net income} \\
\hline 1997 & \$ . 97 & \$ . 99 & \$ & 2.21* & \$ & . 89 & \$ & 5.06* \\
\hline 1996 & . 86 & . 90 & & . 94 & & . 91 ** & & 3.62** \\
\hline
\end{tabular}


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). The registrant will file with the Commission a definitive proxy statement pursuant to Regulation 14A by April 30, 1998.

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 45.

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 February 18, 1998.
Item 5. Other Events. 3M's long-term debt was rated Aaa and AAA by Moody's Investors Service, Inc. ("Moody's") and Standard and Poor's Corporation ("S\&P"), respectively. On February 4, 1998, Moody's lowered its assigned rating to Aa1, and on February 10, 1998, S\&P lowered its assigned rating to AA. Publications of Moody's indicate that it assigns the Aa rating to debt securities that are judged to be of high quality by all standards and are considered high grade bonds. Publications of \(S \& P\) indicate that an obligor rated AA has very strong capacity to meet its financial commitments. The downgrade in ratings is based on the outlook for continued growth in leverage at 3 M resulting from management's decision to alter 3M's capital structure through increased share repurchases and debt issuances.
(c) Exhibits:

Incorporated by Reference:
\begin{tabular}{ll} 
& \begin{tabular}{l} 
Incorporated by Reference \\
in the Report From
\end{tabular} \\
Restated certificate of incorporation \\
and bylaws, amended to and \\
including amendments of \\
May 12, 1987. & \begin{tabular}{l} 
Exhibit (3) to \\
Form \(10-Q\) \\
for period ended \\
June 30, 1987.
\end{tabular} \\
\begin{tabular}{ll} 
Restated certificate of incorporation, \\
as amended as of May 13, 1997.
\end{tabular} & \begin{tabular}{l} 
Form 8-K dated \\
June 30, 1997.
\end{tabular} \\
Bylaws, as amended as of November 11, 1996. & \begin{tabular}{l} 
Form 8-K dated \\
November 20, 1996.
\end{tabular}
\end{tabular}
(4) Instruments defining the rights of security
holders, including debentures:
(a) common stock. Exhibit (3) above.
(b) medium-term notes.

Registration No. 33-48089 on Form S-3.
(10) Material contracts, management
remuneration:
(a) management stock ownership program.
(b) profit sharing plan, performance unit plan and other compensation arrangements.
```
Exhibit 4 of
Registration No. 333-30689
on Form S-8.
Written description
contained in issuer's proxy statment for the 1998 annual shareholders' meeting.
```

Reference (pages) Form 10-K
Submitted herewith:
(12) Calculation of ratio of earnings to fixed charges. 47
(21) Subsidiaries of the registrant. 48
(23) Consent of experts. 49
(24) Power of attorney. 50
(27) Financial data schedule for the year ended December 31, 1997 (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 March 10, 1998

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 March 10, 1998.
\begin{tabular}{ll} 
Signature & Title \\
Livio D. DeSimone & \begin{tabular}{l} 
Chairman of the Board and \\
\\
Chief Executive Officer, Director \\
Ronald O. Baukol \\
Edward A. Brennan \\
Edward R. McCracken \\
W. George Meredith \\
Ronald A. Mitsch \\
Director \\
Allen E. Murray \\
Aulana L. Peters \\
Rozanne Lirector \\
Frank Shrontz \\
Director \\
F. Alan Smith \\
Louis W. Sullivan
\end{tabular} \begin{tabular}{l} 
Director \\
Director
\end{tabular} \\
& Director \\
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.
\[
\begin{aligned}
& \text { MINNESOTA MINING AND MANUFACTURING COMPANY } \\
& \text { AND SUBSIDIARIES } \\
& \text { CALCULATION OF RATIO OF EARNINGS TO FIXED CHARGES } \\
& \text { (Dollars in millions) }
\end{aligned}
\]
<CAPTION>
\begin{tabular}{llllll} 
& 1997 & 1996 & 1995 & 1994 & 1993
\end{tabular}

EARNINGS
Income from continuing operations before income taxes and minority interest* \$3,440 \$2,479 \$2,168 \$2,011 \$1,851

Add:
\begin{tabular}{llllll} 
Interest on debt & 94 & 79 & 102 & 70 & 39 \\
\begin{tabular}{l} 
Interest component of the ESOP \\
benefit expense
\end{tabular} & 32 & 34 & 37 & 39 & 41 \\
\begin{tabular}{l} 
Portion of rent under operating \\
leases representative of \\
the interest component
\end{tabular} & 41 & 46 & 51 & 46 & 44
\end{tabular}

Less:
Equity in undistributed income of 20-50 percent owned companies 3

TOTAL EARNINGS AVAILABLE
FOR FIXED CHARGES \(\$ 3,604 \quad \$ 2,638 \quad \$ 2,357 \quad \$ 2,164 \quad \$ 1,975\)

FIXED CHARGES
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline Interest on debt & 94 & & 79 & & 102 & & 70 & & 39 \\
\hline Interest component of the ESOP benefit expense & 32 & & 34 & & 37 & & 39 & & 41 \\
\hline Portion of rent under operating leases representative of the interest component & 41 & & 46 & & 51 & & 46 & & 44 \\
\hline TOTAL FIXED CHARGES \$ & 167 & \$ & 159 & \$ & 190 & \$ & 155 & \$ & 124 \\
\hline RATIO OF EARNINGS & & & & & & & & & \\
\hline TO FIXED CHARGES & 21.58 & & . 59 & & . 41 & & . 96 & & . 93 \\
\hline
\end{tabular}
<FN>
<F1>
* 1997 includes a pre-tax gain on the sale of National Advertising Company of \(\$ 803\) million; 1995 includes a pre-tax restructuring charge of \(\$ 79\) million. These items are discussed in the Notes to Consolidated Financial Statements. </FN>
</TABLE>

## MINNESOTA MINING AND MANUFACTURING COMPANY

 AND CONSOLIDATED SUBSIDIARIESPARENT AND SUBSIDIARIES


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. 3314791, 33-49842, 33-58767, 333-26957, 333-30689 and 333-30691) and Form S-3 (Registration No. 33-48089), of our report dated February 9, 1998, except for
the last paragraph under Debt in the Notes to Consolidated Financial Statements, as to which the date is February 18, 1998, on our audits of the consolidated financial statements of Minnesota Mining and Manufacturing Company and
Subsidiaries as of December 31, 1997 and 1996, and for each of the three years in the period ended December 31, 1997, which report is included in this Annual Report on Form 10-K.
/s/ COOPERS \& LYBRAND L.L.P.
COOPERS \& LYBRAND L.L.P.
St. Paul, Minnesota
March 10, 1998

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 $10-\mathrm{K}$ for the fiscal year ended December 31, 1997, 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 9th day of February, 1998.
/s/ Livio D. DeSimone Livio D. DeSimone
Chairman of the Board and Chief Executive Officer, Director
/s/ Giulio Agostini
Giulio Agostini
Senior Vice President
Principal Financial Officer
Principal Accounting Officer
/s/ Allen E. Murray
Allen E. Murray, Director
/s/ Aulana L. Peters
Aulana L. Peters, Director
/s/ Rozanne L. Ridgway Rozanne L. Ridgway, Director
/s/ Frank Shrontz
Frank Shrontz, Director
/s/ F. Alan Smith
F. Alan Smith, Director
/s/ Ronald A. Mitsch
Ronald A. Mitsch, Director
/s/ Louis W. Sullivan
Louis W. Sullivan, Director


