

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 8-K

**CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934**

Date of report (Date of earliest event reported): May 8, 2018

3M COMPANY

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation)

File No. 1-3285
(Commission File Number)

41-0417775
(IRS Employer Identification No.)

3M Center, St. Paul, Minnesota
(Address of Principal Executive Offices)

55144-1000
(Zip Code)

(651) 733-1110
(Registrant's Telephone Number, Including Area Code)

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 8.01. Other Events

This Current Report on Form 8-K updates 3M's Annual Report on Form 10-K for the year ended December 31, 2017 ("3M's 2017 Annual Report") to reflect the following:

Adoption of ASU No. 2017-07—Certain pension and postretirement costs reported outside operating income

The Company adopted Accounting Standards Update (ASU) No. 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*, effective January 1, 2018 on a retrospective basis. This ASU changed how employers that sponsor defined benefit pension and/or other postretirement benefit plans present the net periodic benefit cost in the income statement. Under the new standard, only the service cost component of net periodic benefit cost is included in operating expenses and only the service cost component is eligible for capitalization into assets such as inventory. All other net periodic benefit costs components (such as interest, expected return on plan assets, prior service cost amortization and actuarial gain/loss amortization) are reported outside of operating income.

Business Segment Reporting Changes

As part of 3M's continuing effort to improve the alignment of its businesses around markets and customers, the Company made the following changes, effective in the first quarter of 2018, and other revisions impacting business segment reporting:

Consolidation of customer account activity within international countries – expanding dual credit reporting

- The Company consolidated its customer account activity in each country into centralized sales districts for certain countries that make up approximately 70 percent of 3M's 2017 international net sales. Expansion of these initiatives, which previously had been deployed only in the U.S., reduces the complexity for customers when interacting with multiple 3M businesses. 3M business segment reporting measures include dual credit to business segments for certain sales and related operating income. This dual credit is based on which business segment provides customer account activity with respect to a particular product sold in a specific country. The expansion of alignment of customer accounts within additional countries increased the attribution of dual credit across 3M's business segments. Additionally, certain sales and operating income results for electronic bonding product lines that were previously equally divided between the Electronics and Energy business segment and the Industrial business segment are now reported similarly to dual credit.

Centralization of manufacturing and supply technology platforms

- Certain shared film manufacturing and supply technology platform resources formerly reflected within the Electronics and Energy business segment were combined with other shared and centrally managed material resource centers of expertise within Corporate and Unallocated.

The preceding information is filed hereunder as Exhibit 99 which is incorporated herein by reference.

Item 9.01 of this Current Report on Form 8-K updates the information contained in 3M's 2017 Annual Report to reflect the changes described above, which were effective during the first quarter of 2018, for all periods presented herein. Updates provided in this Form 8-K are contained in Part I, Item 1, "Business" and Part II, Item 8, "Financial Statements and Supplementary Data" (specifically the *Consolidated Statement of Income*, Note 1, *Significant Accounting Policies*, Note 3, *Goodwill and Intangible Assets*, Note 5, *Supplemental Income Statement Information*, Note 12, *Pension and Postretirement Benefit Plans* and Note 17, *Business Segments*). 3M also updated Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations", to reflect these changes.

By virtue of this Current Report, the Company will be able to incorporate the updated information by reference into future registration statements or post-effective amendments to existing registration statements. This Current Report does not update for other changes since the filing of the 2017 Annual Report (e.g. new developments in commitments and contingencies). For significant developments since the filing of the 2017 Annual Report, refer to subsequent 2018 Quarterly Reports on Form 10-Q.

Forward-Looking Statements

This Current Report contains forward-looking information about 3M's expected future business and financial performance that involve substantial risks and uncertainties. A further description of these factors is located in this Current Report under "Cautionary Note Concerning Factors That May Affect Future Results" and "Risk Factors" in Exhibit 99, Part I, Items 1 and 1A.

Item 9.01. Financial Statements and Exhibits

<u>Exhibit Number</u>	<u>Description</u>
12	Calculation of Ratio of Earnings to Fixed Charges
23	Consent of Independent Registered Public Accounting Firm
99	Updates, where applicable, to 3M's 2017 Annual Report on Form 10-K include: Part I, Item 1, Business Part I, Item 1A, Risk Factors Part I, Item 1B, Unresolved Staff Comments Part I, Item 2, Properties Part I, Item 3, Legal Proceedings Part I, Item 4, Mine Safety Disclosures Part II, Item 5, Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities Part II, Item 6, Selected Financial Data Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations Part II, Item 7A, Quantitative and Qualitative Disclosures About Market Risk Part II, Item 8, Financial Statements and Supplementary Data Part IV, Item 16, Form 10-K Summary (updated by this Current Report on Form 8-K)
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

SIGNATURES

Pursuant to the requirements 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.

3M COMPANY

By: /s/ Nicholas C. Gangestad
Nicholas C. Gangestad,
Senior Vice President and Chief Financial Officer

Dated: May 8, 2018

3M COMPANY AND SUBSIDIARIES
CALCULATION OF RATIO OF EARNINGS TO FIXED CHARGES
(Millions)

	Year 2017	Year 2016	Year 2015	Year 2014	Year 2013
EARNINGS					
Income before income taxes	\$ 7,548	\$ 7,053	\$ 6,823	\$ 7,026	\$ 6,562
Add:					
Amortization of capitalized interest	19	21	22	22	21
Total fixed charges (excluding capitalized interest)	339	298	250	246	248
Less:					
Equity in undistributed income of equity method investments	11	9	5	(1)	(1)
TOTAL EARNINGS	<u>\$ 7,895</u>	<u>\$ 7,363</u>	<u>\$ 7,090</u>	<u>\$ 7,295</u>	<u>\$ 6,832</u>
FIXED CHARGES					
Interest expense (including capitalized interest and excluding expense on early extinguishment of debt)	238	208	162	159	166
Portion of rent expense under operating leases representative of the interest factor	113	100	101	104	103
TOTAL FIXED CHARGES	<u>\$ 351</u>	<u>\$ 308</u>	<u>\$ 263</u>	<u>\$ 263</u>	<u>\$ 269</u>
RATIO OF EARNINGS TO FIXED CHARGES	22.5	23.9	27.0	27.7	25.4

For purposes of calculating the ratio above:

Earnings is defined as income before income taxes, amortization of capitalized interest, and fixed charges (less capitalized interest), excluding equity in undistributed income of equity method investments. Fixed charges consist of interest expense (including capitalized interest and excluding any expense related to early extinguishment of debt) and approximately one-third of rent expense under operating leases (considered representative of the interest factor).

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Registration Nos. 333-30689, 333-30691, 333-44760, 333-73192, 333-101727, 333-109282, 333-128251, 333-130150, 333-151039, 333-156626, 333-156627, 333-166908, 333-181269, 333-181270, and 333-211431) and Form S-3 (Registration Nos. 333-216219, 33-48089, 333-42660, and 333-109211) of 3M Company of our report dated February 8, 2018, except for the change in the manner in which the Company presents and classifies certain pension and postretirement net periodic benefit costs in the statement of income discussed in Note 1 and Note 5 and in the composition of reportable segments discussed in Notes 3 and 17, as to which the date is May 8, 2018, relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 8-K.

/s/ PricewaterhouseCoopers LLP

Minneapolis, Minnesota
May 8, 2018

3M COMPANY
ANNUAL REPORT ON FORM 10-K
UPDATED BY THIS CURRENT REPORT ON FORM 8-K
For the Year Ended December 31, 2017

Pursuant to Part IV, Item 16, a summary of this Current Report on Form 8-K content follows, including hyperlinked cross-references (in the EDGAR filing). This allows users to easily locate the corresponding items in this Current Report, where the disclosure is fully presented. The summary does not include certain Part III information that is incorporated by reference from the proxy statement.

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3M COMPANY
ANNUAL REPORT ON FORM 10-K
UPDATED BY THIS CURRENT REPORT ON FORM 8-K
For the Year Ended December 31, 2017
PART I

Item 1. Business.

Note: The information contained in this item has been updated for the items described in Item 8.01 on page 2 of this Form 8-K, including 3M's adoption of ASU No. 2017-07 and business segment reporting changes, which are discussed further in Notes 1 and 17 to the Consolidated Financial Statements, respectively. This Item 1 has not been updated for other changes since the filing of the 2017 Annual Report. Item 1 contains a reference to Commitments and Contingencies (Note 15), which has not been updated for new developments. For significant developments since the filing of the 2017 Annual Report, refer to subsequent 2018 Quarterly Reports on Form 10-Q.

3M Company was incorporated in 1929 under the laws of the State of Delaware to continue operations begun in 1902. The Company's ticker symbol is MMM. As used herein, the term "3M" or "Company" includes 3M Company and its subsidiaries unless the context indicates otherwise. In this document, for any references to Note 1 through Note 19, refer to the Notes to Consolidated Financial Statements in Item 8.

Available Information

The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers, including the Company, that file electronically with the SEC. The public can obtain any documents that the Company files with the SEC at <http://www.sec.gov>. The Company files annual reports, quarterly reports, proxy statements and other documents with the Securities and Exchange Commission (SEC) under the Securities Exchange Act of 1934 (Exchange Act). The public may read and copy any materials that the Company files with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

3M also makes available free of charge through its website (<http://investors.3M.com>) the Company's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and, if applicable, amendments to those reports filed or furnished pursuant to the Exchange Act as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the SEC.

General

3M is a diversified technology company with a global presence in the following businesses: Industrial; Safety and Graphics; Health Care; Electronics and Energy; and Consumer. 3M is among the leading manufacturers of products for many of the markets it serves. Most 3M products involve expertise in product development, manufacturing and marketing, and are subject to competition from products manufactured and sold by other technologically oriented companies.

At December 31, 2017, the Company employed 91,536 people (full-time equivalents), with 36,958 employed in the United States and 54,578 employed internationally.

Business Segments

As described in Notes 3 and 17, effective in the first quarter of 2018, the Company changed its business segment reporting as part of 3M's continuing effort to improve the alignment of its businesses around markets and customers. Business segment information presented herein reflects the impact of these changes for all periods presented.

3M manages its operations in five business segments. The reportable segments are Industrial, Safety and Graphics, Health Care, Electronics and Energy, and Consumer. 3M's five business segments bring together common or related 3M technologies, enhancing the development of innovative products and services and providing for efficient sharing of

business resources. Financial information and other disclosures relating to 3M's business segments and operations in major geographic areas are provided in the Notes to Consolidated Financial Statements.

Industrial Business: The Industrial segment serves a broad range of markets, such as automotive original equipment manufacturer (OEM) and automotive aftermarket (auto body shops and retail), electronics and automotive electrification, appliance, paper and printing, packaging, food and beverage, and construction. Industrial products include tapes, a wide variety of coated, non-woven and bonded abrasives, adhesives, advanced ceramics, sealants, specialty materials, purification (filtration products), closure systems for personal hygiene products, acoustic systems products, and components and products that are used in the manufacture, repair and maintenance of automotive, marine, aircraft and specialty vehicles. 3M is also a leading global supplier of precision grinding technology serving customers in the area of hard-to-grind precision applications in industrial, automotive, aircraft and cutting tools. 3M develops and produces advanced technical ceramics for demanding applications in the automotive, oil and gas, solar, industrial, electronics and defense industries. In August 2015, 3M acquired assets and liabilities associated with Polypore International, Inc.'s Separations Media business, a leading provider of microporous membranes and modules for filtration in the life sciences, industrial and specialty segments. In the first quarter of 2016, 3M sold the assets of its pressurized polyurethane foam adhesives business, and in October 2016 sold the assets of its adhesive-backed temporary protective films business.

Major industrial products include vinyl, polyester, foil and specialty industrial tapes and adhesives; Scotch® Masking Tape, Scotch® Filament Tape and Scotch® Packaging Tape; packaging equipment; 3M™ VHB™ Bonding Tapes; conductive, low surface energy, sealants, hot melt, spray and structural adhesives; reclosable fasteners; label materials for durable goods; coated, nonwoven and microstructured surface finishing and grinding abrasives for the industrial market; a comprehensive line of filtration products for the separation, clarification and purification of fluids and gases; and fluoroelastomers for seals, tubes and gaskets in engines.

Major industrial products used in the transportation industry include insulation components, including Thinsulate™ Acoustic Insulation and components for cabin noise reduction and catalytic converters; functional and decorative graphics; abrasion-resistant films; adhesives; sealants; masking tapes; fasteners and tapes for attaching nameplates, trim, moldings, interior panels and carpeting; coated, nonwoven and microstructured finishing and grinding abrasives; structural adhesives; and other specialty materials. In addition, 3M provides paint finishing and detailing products, including a complete system of cleaners, dressings, polishes, waxes and other products.

Safety and Graphics Business: The Safety and Graphics segment serves a broad range of markets that increase the safety and productivity of people, facilities and systems. Major product offerings include personal protection products, such as respiratory, hearing, eye and fall protection equipment; commercial solutions, including commercial graphics sheeting and systems, architectural design solutions for surfaces, and cleaning and protection products for commercial establishments; transportation safety solutions, such as retroreflective sign sheeting; and roofing granules for asphalt shingles. In August 2015, 3M acquired Capital Safety Group S.A.R.L., a leading global provider of fall protection equipment. As discussed in Note 2, in October 2017, 3M completed the acquisition of the underlying legal entities and associated assets of Scott Safety, a premier manufacturer of innovative products, including self-contained breathing apparatus systems, gas and flame detection instruments, and other safety devices that complement 3M's personal safety portfolio. In January 2017, 3M sold the assets of its safety prescription eyewear business.

This segment's products include personal protection products, such as certain disposable and reusable respirators, fall protection equipment, personal protective equipment, head and face protection, body protection, hearing protection and protective eyewear, plus reflective materials that are widely used on apparel, footwear and accessories, enhancing visibility in low-light situations.

Major commercial graphics products include films, inks, and related products used to produce graphics for vehicles, signs and interior surfaces.

In transportation safety, 3M provides reflective sheeting used on highway signs, vehicle license plates, construction work-zone devices, trucks and other vehicles, and also provides pavement marking systems. In December 2015, 3M sold Faab Fabricauto, a French manufacturer of license plates and signage solutions, and in the first quarter of 2016 completed the sale of its library systems business. As discussed in Note 2, in May 2017, 3M completed the related sale

or transfer of control, as applicable, of its identity management business. In June 2017, 3M also completed the sale of its tolling and automated license/number plate recognition business and in October 2017, sold its electronic monitoring business.

Other segment products include spill-control sorbents; nonwoven abrasive materials for floor maintenance and commercial cleaning; floor matting; and natural and color-coated mineral granules for asphalt shingles.

Health Care Business: The Health Care segment serves markets that include medical clinics and hospitals, pharmaceuticals, dental and orthodontic practitioners, health information systems, and food manufacturing and testing. Products and services provided to these and other markets include medical and surgical supplies, skin health and infection prevention products, oral care solutions (dental and orthodontic products), health information systems, inhalation and transdermal drug delivery systems, and food safety products. In March 2015, 3M acquired Ivera Medical Corp., a manufacturer of health care products that disinfect and protect devices used for access into a patient's bloodstream.

In advanced wound management, 3M is a supplier of medical tapes, dressings, wound closure products, orthopedic casting materials, in addition to acute wound care, skin integrity and disinfecting port protection products. In infection prevention, 3M markets a variety of surgical drapes, masks and preps, electrodes, stethoscopes, as well as sterilization assurance equipment and patient warming solutions designed to prevent hypothermia in surgical settings. Other products include drug delivery systems, such as metered-dose inhalers, transdermal skin patches and related components. Oral care solutions include restoratives, adhesives, finishing and polishing products, crowns, impression materials, preventive sealants, professional tooth whiteners, prophylaxis and orthodontic appliances, as well as digital workflow solutions to transform traditional impression and analog processes. In health information systems, 3M develops and markets computer software for hospital coding and data classification, and provides related consulting services. 3M provides food safety products that make it faster and easier for food processors to test the microbiological quality of food. As discussed in Note 2, in September 2017, 3M purchased all of the ownership interests of Elution Technologies, LLC, a Vermont-based manufacturer of test kits that help enable food and beverage companies ensure their products are free from certain potentially harmful allergens such as peanuts, soy or milk.

Electronics and Energy Business: The Electronics and Energy segment serves customers in electronics and energy markets, including solutions that improve the dependability, cost-effectiveness, and performance of electronic devices; electrical products, including infrastructure protection; telecommunications networks; and power generation and distribution.

This segment's electronics solutions include the display materials and systems business, which provides films that serve numerous market segments of the electronic display industry. 3M provides distinct products for five market segments, including products for: 1) LCD computer monitors 2) LCD televisions 3) handheld devices such as cellular phones and tablets 4) notebook PCs and 5) automotive displays. This segment also provides desktop and notebook computer screen filters that address display light control, privacy, and glare reduction needs. Major electronics products also include packaging and interconnection devices; high performance fluids and abrasives used in the manufacture of computer chips, and for cooling electronics and lubricating computer hard disk drives; and high-temperature and display tapes. Flexible circuits use electronic packaging and interconnection technology, providing more connections in less space, and are used in ink-jet printer cartridges, cell phones and electronic devices. This segment also includes touch systems products, including touch screens, touch monitors, and touch sensor components. In December 2016, 3M sold the assets of its cathode battery technology out-licensing business.

This segment's energy solutions include electrical products, including infrastructure protection, telecommunications, and renewable energy. This segment serves the world's electrical and telecommunications markets, including electrical utilities, electrical construction, maintenance and repair, original equipment manufacturers (OEM), telecommunications central office, outside plant and enterprise, as well as aerospace, military, automotive and medical markets, with products that enable the efficient transmission of electrical power and speed the delivery of information. Products in this segment include pressure sensitive tapes and resins, electrical insulation, a wide array of fiber-optic and copper-based telecommunications systems for rapid deployment of fixed and wireless networks, as well as the 3M™ Aluminum Conductor Composite Reinforced (ACCR) electrical power cable that increases transmission capacity for existing power

lines. This segment also includes renewable energy component solutions for the solar and wind power industries, as well as infrastructure products solutions that provide municipalities both protection and detection solutions for electrical, oil, natural gas, water, rebar and other infrastructure assets.

Consumer Business: The Consumer segment serves markets that include consumer retail, office retail, office business to business, home improvement, drug and pharmacy retail, and other markets. Products in this segment include office supply products, stationery products, home improvement products (do-it-yourself), home care products, protective material products, certain consumer retail personal safety products, and consumer health care products.

Major consumer products include Scotch® brand products, such as Scotch® Magic™ Tape, Scotch® Glue Stick and Scotch® Cushioned Mailer; Post-it® Products, such as Post-it® Flags, Post-it® Note Pads, Post-it® Labeling & Cover-up Tape, and Post-it® Pop-up Notes and Dispensers; home improvement products, including surface-preparation and wood-finishing materials, Command™ Adhesive Products and Filtrete™ Filters for furnaces and air conditioners; home care products, including Scotch-Brite® Scour Pads, Scotch-Brite® Scrub Sponges, Scotch-Brite® Microfiber Cloth products, O-Cel-O™ Sponges; protective material products, such as Scotchgard™ Fabric Protectors; certain maintenance-free respirators; certain consumer retail personal safety products, including safety glasses, hearing protectors, and 3M Thinsulate™ Insulation, which is used in jackets, pants, gloves, hats and boots to keep people warm; Nexcare™ Adhesive Bandages; and ACE® branded (and related brands) elastic bandage, supports and thermometer product lines.

Distribution

3M products are sold through numerous distribution channels, including 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 the confidence of wholesalers, retailers, jobbers, distributors and dealers in 3M and its products — a confidence developed through long association with skilled marketing and sales representatives — has contributed significantly to 3M's position in the marketplace and to its growth.

Research and Patents

Research and product development constitutes an important part of 3M's activities and has been a major driver of 3M's sales and profit growth. Research, development and related expenses totaled \$1.870 billion in 2017, \$1.764 billion in 2016 and \$1.757 billion in 2015. Research and development, covering basic scientific research and the application of scientific advances in the development of new and improved products and their uses, totaled \$1.352 billion in 2017, \$1.248 billion in 2016 and \$1.220 billion in 2015. Related expenses primarily include technical support; internally developed patent costs, which include costs and fees incurred to prepare, file, secure and maintain patents; amortization of externally acquired patents and externally acquired in-process research and development; and gains/losses associated with certain corporate approved investments in R&D-related ventures, such as equity method effects and impairments.

The Company's products are sold around the world under various trademarks. The Company also owns, or holds licenses to use, numerous U.S. and foreign patents. The Company's research and development activities generate a steady stream of inventions that are covered by new patents. Patents applicable to specific products extend for varying periods according to the date of patent application filing or patent grant and the legal term of patents in the various countries where patent protection is obtained. The actual protection afforded by a patent, which can vary from country to country, depends upon the type of patent, the scope of its coverage and the availability of legal remedies in the country.

The Company believes that its patents provide an important competitive advantage in many of its businesses. In general, no single patent or group of related patents is in itself essential to the Company as a whole or to any of the Company's business segments.

Raw Materials

In 2017, the Company continued to manage year-on-year raw material input costs, benefiting from input management, reformulations, and multi-sourcing activities. These efforts more than offset increasing costs in certain raw material

categories in oil-derivative chemical feedstock markets. Oil-derivative cost increases also impact other feedstock categories, including petroleum based materials, minerals, metals and wood pulp based products. To date, the Company is receiving sufficient quantities of all raw materials to meet its reasonably foreseeable production requirements. It is difficult to predict future shortages of raw materials or the impact any such shortages would have. 3M has avoided disruption to its manufacturing operations through careful management of existing raw material inventories, strategic relationships with key suppliers, and development and qualification of additional supply sources. 3M manages spend category price risks through negotiated supply contracts, price protection agreements and commodity price swaps.

Environmental Law Compliance

3M’s manufacturing operations are affected by national, state and local environmental laws around the world. 3M has made, and plans to continue making, necessary expenditures for compliance with applicable laws. 3M is also involved in remediation actions relating to environmental matters from past operations at certain sites (refer to “Environmental Matters and Litigation” in Note 15, Commitments and Contingencies).

Environmental expenditures relating to existing conditions caused by past operations that do not contribute to current or future revenues are expensed. Reserves for liabilities for anticipated remediation costs are recorded on an undiscounted basis when they are probable and reasonably estimable, generally no later than the completion of feasibility studies, the Company’s commitment to a plan of action, or approval by regulatory agencies. Environmental expenditures for capital projects that contribute to current or future operations generally are capitalized and depreciated over their estimated useful lives.

In 2017, 3M expended about \$33 million for capital projects related to protecting the environment. This amount excludes expenditures for remediation actions relating to existing matters caused by past operations that do not contribute to current or future revenues, which are expensed. Capital expenditures for environmental purposes have included pollution control devices — such as wastewater treatment plant improvements, scrubbers, containment structures, solvent recovery units and thermal oxidizers — at new and existing facilities constructed or upgraded in the normal course of business. Consistent with the Company’s emphasis on environmental responsibility, capital expenditures (other than for remediation projects) for known projects are presently expected to be about \$66 million over the next two years for new or expanded programs to build facilities or modify manufacturing processes to minimize waste and reduce emissions.

While the Company cannot predict with certainty the future costs of such cleanup activities, capital expenditures or operating costs for environmental compliance, the Company does not believe they will have a material effect on its capital expenditures, earnings or competitive position.

Executive Officers

Following is a list of the executive officers of 3M, and their age, present position, the year elected to their present position and other positions they have held during the past five years. No family relationships exist among any of the executive officers named, nor is there any undisclosed arrangement or understanding pursuant to which any person was selected as an officer. This information is presented in the table below as of the date of the 10-K filing (February 8, 2018).

Name	Age	Present Position	Year Elected to Present Position	Other Positions Held During 2013-2017
Inge. G. Thulin	64	Chairman of the Board, President and Chief Executive Officer	2012	
John P. Banovetz	50	Senior Vice President, Research and Development and Chief Technology Officer	2017	Managing Director, DACH Region, 2016-2017 Vice President, Corporate Research Laboratory, Research and Development, 2015-2016 Global Business Director, Industrial Adhesives and Tapes Division, 2012-2015

Name	Age	Present Position	Year Elected to Present Position	Other Positions Held During 2013-2017
James L. Bauman	58	Executive Vice President, Industrial Business Group	2017	Executive Vice President, Electronics and Energy Business Group, 2015-2017 Senior Vice President, Business Transformation, Americas, 2015 Senior Vice President, Asia Pacific, 2012-2014
Julie L. Bushman	56	Executive Vice President, International Operations	2017	Senior Vice President, Business Transformation and Information Technology, 2013-2017 Executive Vice President, Safety and Graphics, 2012-2013
Joaquin Delgado	57	Executive Vice President, Consumer Business Group	2016	Executive Vice President, Health Care Business Group 2012-2016
Ivan K. Fong	56	Senior Vice President, Legal Affairs and General Counsel	2012	
Nicholas C. Gangestad	53	Senior Vice President and Chief Financial Officer	2014	Vice President, Corporate Controller and Chief Accounting Officer, 2011-2014
Eric D. Hammes	43	Senior Vice President, Business Transformation & Information Technology	2017	Vice President, Corporate Controller and Chief Accounting Officer, 2014-2017 Vice President, Finance, International and Staff Operations, 2013-2014 Finance Director, Health Care Business, 2012-2013
Paul A. Keel	48	Senior Vice President, Business Development and Marketing-Sales	2017	Senior Vice President, Supply Chain, 2014-2017 Managing Director, 3M United Kingdom-Ireland Region, 2013-2014 Vice President and General Manager, Skin and Wound Care Division, 2010-2013
Ashish K. Khandpur	50	Executive Vice President, Electronics & Energy Business Group	2017	Senior Vice President, Research and Development, and Chief Technology Officer, 2014-2017 Vice President and General Manager, Personal Safety Division, 2014 Vice President, Research and Development, Industrial Business Group, 2013
Jon T. Lindekugel	53	Senior Vice President, Supply Chain	2017	Senior Vice President, Business Development and Marketing-Sales, 2015-2017 Senior Vice President, Business Development, 2014-2015 President, Health Information Systems Inc., 2008-2014
Frank R. Little	57	Executive Vice President, Safety and Graphics Business Group	2013	Vice President and General Manager, Personal Safety Division, 2013
Kristen M. Ludgate	55	Senior Vice President, Corporate Communications and Enterprise Services	2018	Vice President, Global Human Resources Business Operations, Human Resources, 2017-2018 Vice President, Associate General Counsel and Chief Compliance Officer, Compliance and Business Conduct, 2015-2017 Associate General Counsel, Labor and Employment, Office of General Counsel, 2013-2015
Marlene M. McGrath	55	Senior Vice President, Human Resources	2012	

<u>Name</u>	<u>Age</u>	<u>Present Position</u>	<u>Year Elected to Present Position</u>	<u>Other Positions Held During 2013-2017</u>
Michael F. Roman	58	Chief Operating Officer and Executive Vice President	2017	Executive Vice President, Industrial Business Group, 2014-2017 Senior Vice President, Business Development, 2013-2014 Vice President and General Manager, Industrial Adhesives and Tapes Division, 2011-2013
Hak Cheol Shin	60	Vice Chair and Executive Vice President	2017	Executive Vice President, International Operations, 2011-2017
Michael G. Vale	51	Executive Vice President, Health Care Business Group	2016	Executive Vice President, Consumer Business Group, 2012-2016

Cautionary Note Concerning Factors That May Affect Future Results

This Current Report on Form 8-K, including “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Item 7, contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The Company may also make forward-looking statements in other reports filed with the Securities and Exchange Commission, in materials delivered to shareholders and in press releases. In addition, the Company’s representatives may from time to time make oral forward-looking statements.

Forward-looking statements relate to future events and typically address the Company’s expected future business and financial performance. Words such as “plan,” “expect,” “aim,” “believe,” “project,” “target,” “anticipate,” “intend,” “estimate,” “will,” “should,” “could,” “forecast” and other words and terms of similar meaning, typically identify such forward-looking statements. In particular, these include, among others, statements relating to:

- the Company’s strategy for growth, future revenues, earnings, cash flow, uses of cash and other measures of financial performance, and market position,
- worldwide economic, political, and capital markets conditions, such as interest rates, foreign currency exchange rates, financial conditions of our suppliers and customers, and natural and other disasters or climate change affecting the operations of the Company or our suppliers and customers,
- new business opportunities, product development, and future performance or results of current or anticipated products,
- the scope, nature or impact of acquisition, strategic alliance and divestiture activities,
- the outcome of contingencies, such as legal and regulatory proceedings,
- future levels of indebtedness, common stock repurchases and capital spending,
- future availability of and access to credit markets,
- pension and postretirement obligation assumptions and future contributions,
- asset impairments,
- tax liabilities,
- information technology security, and
- the effects of changes in tax (including the newly enacted Tax Cuts and Jobs Act), environmental and other laws and regulations in the United States and other countries in which we operate.

The Company assumes no obligation to update or revise any forward-looking statements.

Forward-looking statements are based on certain assumptions and expectations of future events and trends that are subject to risks and uncertainties. Actual future results and trends may differ materially from historical results or those reflected in any such forward-looking statements depending on a variety of factors. Important information as to these factors can be found in this document, including, among others, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the headings of “Overview,” “Financial Condition and Liquidity” and annually in “Critical Accounting Estimates.” Discussion of these factors is incorporated by reference from Part I, Item 1A, “Risk Factors,” of this document, and should be considered an integral part of Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” For additional information concerning

factors that may cause actual results to vary materially from those stated in the forward-looking statements, see our reports on Form 10-K, 10-Q and 8-K filed with the SEC from time to time.

Note: Item 1A through Item 6 have not been updated for changes since the filing of the 2017 Annual Report, such as updates to legal proceedings. For significant developments since the filing of the 2017 Annual Report, refer to subsequent 2018 Quarterly Reports on Form 10-Q.

Item 1A. Risk Factors.

Provided below is a cautionary discussion of what we believe to be the most important risk factors applicable to the Company. Discussion of these factors is incorporated by reference into and considered an integral part of Part II, Item 7, "Management's Discussion and Analysis of Financial Conditions and Results of Operations."

** Results are impacted by the effects of, and changes in, worldwide economic, political, and capital markets conditions.* The Company operates in more than 70 countries and derives approximately 60 percent of its revenues from outside the United States. The Company's business is subject to global competition and geopolitical risks and may be adversely affected by factors in the United States and other countries that are beyond its control, such as slower economic growth, disruptions in financial markets, economic downturns in the form of either contained or widespread recessionary conditions, inflation, elevated unemployment levels, sluggish or uneven recovery, government deficit reduction and other austerity measures in specific countries or regions, or in the various industries in which the Company operates; social, political or labor conditions in specific countries or regions; natural and other disasters or climate change affecting the operations of the Company or its customers and suppliers; or adverse changes in the availability and cost of capital, interest rates, tax rates, tax laws, or exchange control, ability to expatriate earnings and other regulations in the jurisdictions in which the Company operates.

** Change in the Company's credit ratings could increase cost of funding.* The Company's credit ratings are important to 3M's cost of capital. The major rating agencies routinely evaluate the Company's credit profile and assign debt ratings to 3M. This evaluation is based on a number of factors, which include financial strength, business and financial risk, as well as transparency with rating agencies and timeliness of financial reporting. 3M currently has an AA- credit rating with a stable outlook from Standard & Poor's and has an A1 credit rating with a stable outlook from Moody's Investors Service. The Company's credit ratings have served to lower 3M's borrowing costs and facilitate access to a variety of lenders. The addition of further leverage to the Company's capital structure could impact 3M's credit ratings in the future. Failure to maintain strong investment grade ratings would adversely affect the Company's cost of funding and could adversely affect liquidity and access to capital markets.

** The Company's results are affected by competitive conditions and customer preferences.* Demand for the Company's products, which impacts revenue and profit margins, is affected by (i) the development and timing of the introduction of competitive products; (ii) the Company's response to downward pricing to stay competitive; (iii) changes in customer order patterns, such as changes in the levels of inventory maintained by customers and the timing of customer purchases which may be affected by announced price changes, changes in the Company's incentive programs, or the customer's ability to achieve incentive goals; and (iv) changes in customers' preferences for our products, including the success of products offered by our competitors, and changes in customer designs for their products that can affect the demand for some of the Company's products.

** Foreign currency exchange rates and fluctuations in those rates may affect the Company's ability to realize projected growth rates in its sales and earnings.* Because the Company's financial statements are denominated in U.S. dollars and approximately 60 percent of the Company's revenues are derived from outside the United States, the Company's results of operations and its ability to realize projected growth rates in sales and earnings could be adversely affected if the U.S. dollar strengthens significantly against foreign currencies.

** The Company's growth objectives are largely dependent on the timing and market acceptance of its new product offerings, including its ability to continually renew its pipeline of new products and to bring those products to market.* This ability may be adversely affected by difficulties or delays in product development, such as the inability to identify

viable new products, obtain adequate intellectual property protection, or gain market acceptance of new products. There are no guarantees that new products will prove to be commercially successful.

** The Company's future results are subject to fluctuations in the costs and availability of purchased components, compounds, raw materials and energy, including oil and natural gas and their derivatives, due to shortages, increased demand, supply interruptions, currency exchange risks, natural disasters and other factors.* The Company depends on various components, compounds, raw materials, and energy (including oil and natural gas and their derivatives) supplied by others for the manufacturing of its products. It is possible that any of its supplier relationships could be interrupted due to natural and other disasters and other events, or be terminated in the future. Any sustained interruption in the Company's receipt of adequate supplies could have a material adverse effect on the Company. In addition, while the Company has a process to minimize volatility in component and material pricing, no assurance can be given that the Company will be able to successfully manage price fluctuations or that future price fluctuations or shortages will not have a material adverse effect on the Company.

** Acquisitions, strategic alliances, divestitures, and other unusual events resulting from portfolio management actions and other evolving business strategies, and possible organizational restructuring could affect future results.* The Company monitors its business portfolio and organizational structure and has made and may continue to make acquisitions, strategic alliances, divestitures and changes to its organizational structure. With respect to acquisitions, future results will be affected by the Company's ability to integrate acquired businesses quickly and obtain the anticipated synergies.

** The Company's future results may be affected if the Company generates fewer productivity improvements than estimated.* The Company utilizes various tools, such as Lean Six Sigma, and engages in ongoing global business transformation. Business transformation is defined as changes in processes and internal/external service delivery across 3M to move to more efficient business models to improve operational efficiency and productivity, while allowing 3M to serve customers with greater speed and efficiency. This is enabled by the ongoing multi-year phased implementation of an enterprise resource planning (ERP) system on a worldwide basis. There can be no assurance that all of the projected productivity improvements will be realized.

** The Company employs information technology systems to support its business, including ongoing phased implementation of an ERP system as part of business transformation on a worldwide basis over the next several years. Security breaches and other disruptions to the Company's information technology infrastructure could interfere with the Company's operations, compromise information belonging to the Company or its customers, suppliers, and employees, exposing the Company to liability which could adversely impact the Company's business and reputation.* In the ordinary course of business, the Company relies on information technology networks and systems, some of which are managed by third parties, to process, transmit and store electronic information, and to manage or support a variety of business processes and activities. Additionally, the Company collects and stores certain data, including proprietary business information, and may have access to confidential or personal information in certain of our businesses that is subject to privacy and security laws, regulations and customer-imposed controls. Despite our cybersecurity measures (including employee and third-party training, monitoring of networks and systems, patching, maintenance, and backup of systems and data), the Company's information technology networks and infrastructure may still be vulnerable to damage, disruptions or shutdowns due to attacks by hackers, breaches, employee error or malfeasance, power outages, computer viruses, telecommunication or utility failures, systems failures, service or cloud provider breaches, natural disasters or other catastrophic events. It is possible for such vulnerabilities to remain undetected for an extended period, up to and including several years. While we have experienced, and expect to continue to experience, these types of threats to the Company's information technology networks and infrastructure, none of them to date has had a material impact to the Company. There may be other challenges and risks as the Company upgrades and standardizes its ERP system on a worldwide basis. Any such events could result in legal claims or proceedings, liability or penalties under privacy laws, disruption in operations, and damage to the Company's reputation, which could adversely affect the Company's business. Although the Company maintains insurance coverage for various cybersecurity risks, there can be no guarantee that all costs or losses incurred will be fully insured.

** The Company's defined benefit pension and postretirement plans are subject to financial market risks that could adversely impact our results.* The performance of financial markets and discount rates impact the Company's funding

obligations under its defined benefit plans. Significant changes in market interest rates, decreases in the fair value of plan assets and investment losses on plan assets, and relevant legislative or regulatory changes relating to defined benefit plan funding may increase the Company's funding obligations and adversely impact its results of operations and cash flows.

** The Company's future results may be affected by various legal and regulatory proceedings and legal compliance risks, including those involving product liability, antitrust, intellectual property, environmental, the U.S. Foreign Corrupt Practices Act and other anti-bribery, anti-corruption, or other matters. The outcome of these legal proceedings may differ from the Company's expectations because the outcomes of litigation, including regulatory matters, are often difficult to reliably predict. Various factors or developments can lead the Company to change current estimates of liabilities and related insurance receivables where applicable, or make such estimates for matters previously not susceptible of reasonable estimates, such as a significant judicial ruling or judgment, a significant settlement, significant regulatory developments or changes in applicable law. A future adverse ruling, settlement or unfavorable development could result in future charges that could have a material adverse effect on the Company's results of operations or cash flows in any particular period. For a more detailed discussion of the legal proceedings involving the Company and the associated accounting estimates, see the discussion in Note 15 "Commitments and Contingencies" within the Notes to Consolidated Financial Statements.*

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

In the U.S., 3M's general offices, corporate research laboratories, and certain division laboratories are located in St. Paul, Minnesota. The Company operates 80 manufacturing facilities in 29 states. Internationally, the Company operates 125 manufacturing and converting facilities in 37 countries.

3M owns the majority of its physical properties. 3M's physical facilities are highly suitable for the purposes for which they were designed. Because 3M is a global enterprise characterized by substantial intersegment cooperation, properties are often used by multiple business segments.

Item 3. Legal Proceedings.

Discussion of legal matters is incorporated by reference from Part II, Item 8, Note 15, "Commitments and Contingencies," of this document, and should be considered an integral part of Part I, Item 3, "Legal Proceedings."

Item 4. Mine Safety Disclosures.

Pursuant to Section 1503 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Act"), the Company is required to disclose, in connection with the mines it operates, information concerning mine safety violations or other regulatory matters in its periodic reports filed with the SEC. For the year 2017, the information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Act is included in Exhibit 95 to this annual report.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Equity compensation plans’ information is incorporated by reference from Part III, Item 12, “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters,” of this document, and should be considered an integral part of Item 5. At January 31, 2018, there were 78,331 shareholders of record. 3M’s stock is listed on the New York Stock Exchange, Inc. (NYSE), the Chicago Stock Exchange, Inc., and the SWX Swiss Exchange. Cash dividends declared and paid totaled \$1.175 and \$1.11 per share for each quarter in 2017 and 2016, respectively. Stock price comparisons follow:

Stock price comparisons (NYSE composite transactions)

<u>(Per share amounts)</u>	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>	<u>Year</u>
2017 High	\$ 193.50	\$ 214.57	\$ 214.65	\$ 244.23	\$ 244.23
2017 Low	173.55	188.62	197.17	210.03	173.55
2016 High	\$ 167.50	\$ 175.14	\$ 182.27	\$ 180.06	\$ 182.27
2016 Low	134.64	163.17	173.51	163.85	134.64

Issuer Purchases of Equity Securities

Repurchases of 3M common stock are made to support the Company’s stock-based employee compensation plans and for other corporate purposes. In February 2016, 3M’s Board of Directors authorized the repurchase of up to \$10 billion of 3M’s outstanding common stock, with no pre-established end date.

Issuer Purchases of Equity Securities
(registered pursuant to Section 12 of the Exchange Act)

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)	Maximum Approximate Dollar Value of Shares that May Yet Be Purchased under the Plans or Programs (Millions)
January 1-31, 2017	1,245,580	\$ 177.61	1,245,347	\$ 6,835
February 1-28, 2017	1,038,362	\$ 182.41	1,037,719	\$ 6,645
March 1-31, 2017	1,168,893	\$ 190.75	1,168,893	\$ 6,422
Total January 1-March 31, 2017	3,452,835	\$ 183.50	3,451,959	\$ 6,422
April 1-30, 2017	934,900	\$ 191.64	933,463	\$ 6,244
May 1-31, 2017	1,017,290	\$ 197.80	1,017,000	\$ 6,042
June 1-30, 2017	396,770	\$ 208.83	396,770	\$ 5,960
Total April 1-June 30, 2017	2,348,960	\$ 197.21	2,347,233	\$ 5,960
July 1-31, 2017	431,272	\$ 205.00	431,272	\$ 5,871
August 1-31, 2017	572,552	\$ 204.69	572,552	\$ 5,754
September 1-30, 2017	893,559	\$ 209.62	893,559	\$ 5,567
Total July 1-September 30, 2017	1,897,383	\$ 207.08	1,897,383	\$ 5,567
October 1-31, 2017	982,356	\$ 220.27	980,804	\$ 5,351
November 1-30, 2017	621,143	\$ 231.38	621,143	\$ 5,207
December 1-31, 2017	575,924	\$ 237.86	575,924	\$ 5,070
Total October 1-December 31, 2017	2,179,423	\$ 228.08	2,177,871	\$ 5,070
Total January 1-December 31, 2017	9,878,601	\$ 201.13	9,874,446	\$ 5,070

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- (1) The total number of shares purchased includes: (i) shares purchased under the Board's authorizations described above, and (ii) shares purchased in connection with the exercise of stock options.
- (2) The total number of shares purchased as part of publicly announced plans or programs includes shares purchased under the Board's authorizations described above.

Item 6. Selected Financial Data.

(Dollars in millions, except per share amounts)	2017	2016	2015	2014	2013
Years ended December 31:					
Net sales	\$ 31,657	\$ 30,109	\$ 30,274	\$ 31,821	\$ 30,871
Net income attributable to 3M	4,858	5,050	4,833	4,956	4,659
Per share of 3M common stock:					
Net income attributable to 3M — basic	8.13	8.35	7.72	7.63	6.83
Net income attributable to 3M — diluted	7.93	8.16	7.58	7.49	6.72
Cash dividends declared per 3M common share	4.70	4.44	3.075	3.59	3.395
Cash dividends paid per 3M common share	4.70	4.44	4.10	3.42	2.54
At December 31:					
Total assets	\$ 37,987	\$ 32,906	\$ 32,883	\$ 31,374	\$ 33,304
Long-term debt (excluding portion due within one year) and long-term capital lease obligations	12,156	10,723	8,799	6,764	4,367

Cash dividends declared and paid totaled \$1.175 and \$1.11 per share for each quarter in 2017 and 2016, respectively. 3M typically declares and pays dividends in the same quarter. In December 2013 and 2014, 3M declared dividends that were paid in the following first quarter.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

Note: The information contained in this item has been updated for the items described in Item 8.01 on page 2 of this Form 8-K, including 3M’s adoption of ASU No. 2017-07 and business segment reporting changes, which are discussed further in Notes 1 and 17 to the Consolidated Financial Statements, respectively. This Item 7 has not been updated for other changes since the filing of the 2017 Annual Report. For significant developments since the filing of the 2017 Annual Report, refer to subsequent 2018 Quarterly Reports on Form 10-Q.

Management’s Discussion and Analysis of Financial Condition and Results of Operations (MD&A) is designed to provide a reader of 3M’s financial statements with a narrative from the perspective of management. 3M’s MD&A is presented in eight sections:

- Overview
- Results of Operations
- Performance by Business Segment
- Performance by Geographic Area
- Critical Accounting Estimates
- New Accounting Pronouncements
- Financial Condition and Liquidity
- Financial Instruments

Forward-looking statements in Item 7 may involve risks and uncertainties that could cause results to differ materially from those projected (refer to the section entitled “Cautionary Note Concerning Factors That May Affect Future Results” in Item 1 and the risk factors provided in Item 1A for discussion of these risks and uncertainties).

OVERVIEW

3M is a diversified global manufacturer, technology innovator and marketer of a wide variety of products and services. As more fully described in both the Performance by Business Segment section in MD&A and in Note 17, effective in the first quarter of 2018, the Company changed its business segment reporting in its continuing effort to improve the alignment of businesses around markets and customers. These changes included consolidation of customer account activity into centralized sales districts within certain countries that make up approximately 70 percent of 3M’s 2017 international net sales, impacting dual credit reporting, in addition to the centralization of manufacturing and supply technology platforms within Corporate and Unallocated. Segment information presented herein reflects the impact of these changes for all periods presented.

3M manages its operations in five operating business segments: Industrial; Safety and Graphics; Health Care; Electronics and Energy; and Consumer. From a geographic perspective, any references to EMEA refer to Europe, Middle East and Africa on a combined basis.

Earnings per share (EPS) attributable to 3M common shareholders – diluted:

The following table provides the increase (decrease) in diluted earnings per share for the fourth quarter and year 2017 compared to the same period last year, in addition to 2016 compared to 2015.

(Earnings per diluted share)	Three months ended	Year ended	
	December 31, 2017	December 31, 2017	December 31, 2016
Same period last year	\$ 1.88	\$ 8.16	\$ 7.58
Increase/(decrease) in earnings per share - diluted, due to:			
Organic growth/other productivity	0.35	0.94	(0.09)
Acquisitions and divestitures	(0.02)	0.54	0.14
Incremental strategic investments	(0.06)	(0.51)	0.14
Legal - respirator mask actuarial reserve	(0.07)	(0.07)	—
Foreign exchange impacts	—	(0.13)	(0.14)
Shares of common stock outstanding	—	0.08	0.24
Other expense (income), net	(0.11)	(0.18)	0.20
Income tax rate, excluding Tax Cuts and Jobs Act TCJA)	0.13	0.34	0.09
Current period, excluding TCJA	\$ 2.10	\$ 9.17	\$ 8.16
TCJA enactment impact	(1.25)	(1.24)	—
Current period	\$ 0.85	\$ 7.93	\$ 8.16

Year 2017 and fourth quarter EPS:

For the fourth quarter of 2017, net income attributable to 3M was \$523 million, or \$0.85 per diluted share, compared to \$1.155 billion, or \$1.88 per diluted share, in the fourth quarter of 2016, a decrease of 54.8 percent on a per diluted share. Excluding the \$762 million impact related to the enactment of the Tax Cuts and Jobs Act (TCJA), net income was \$1.285 billion, or \$2.10 per diluted share, an increase of 11.7 percent on a per diluted share basis compared to the fourth quarter of 2016. For the full year 2017, net income attributable to 3M was \$4.858 billion, or \$7.93 per diluted share, compared to \$5.050 billion, or \$8.16 per diluted share, for the full year 2016, a decrease of 2.8 percent on a per diluted share basis. Excluding the 2017 impact related to TCJA, net income was \$5.620 billion, or \$9.17 per diluted share, an increase of 12.4 percent on a per diluted share basis compared to 2016. The Company refers to various measures excluding the 2017 net impact of enactment of the Tax Cuts and Jobs Act. These non-GAAP measures are further described and reconciled to the most directly comparable GAAP financial measures in the section that follows.

Organic growth/productivity in 2017 includes benefits from higher organic local-currency sales, raw material cost decreases from sourcing cost reduction projects, and business transformation, which is having a positive impact on 3M's productivity efforts. These benefits were partially offset by higher defined benefit pension service cost expenses. During both the fourth quarter and full year 2017, organic growth and productivity were the primary drivers for the year-on-year benefit.

Acquisitions and divestitures decreased earnings per diluted share by 2 cents year-on-year for the fourth quarter of 2017, while increasing earnings per diluted share by 54 cents year-on-year for the full year 2017. Acquisition impacts, which are measured for the first twelve months post-transaction, relate primarily to the acquisition of Scott Safety (fourth quarter 2017). The net impact related to Scott Safety includes income from operations, more than offset by the transaction and integration costs of the acquisition. Interest expense related to financing costs of Scott Safety are also included. The net impact related to Scott Safety was equivalent to a year-on-year decrease of 7 cents per diluted share. Full year 2017 had year-on-year operating income impacts from the following divestitures: Polyfoam and the remaining portion of the library system business (both in first quarter 2016), protective films business and cathode battery technology out-license business (both in fourth quarter 2016), prescription safety eyewear business (January 2017), identity management business and tolling and automated license/number plate recognition business (both in the second quarter of 2017), and electronic monitoring business (fourth quarter 2017). The incremental year-on-year pre-tax gain on divestiture impact, net of lost operating loss/(income) during the fourth quarter of 2017 was \$26 million, or approximately 5 cents per diluted share. For the full year 2017, the year-on-year net pre-tax increase from divestitures was approximately \$474 million, which is equivalent to a year-on-year increase of 61 cents per diluted share (primarily

related to the identity management business). Additional discussion on divestitures is provided later within the “Divestitures and Strategic Investments” section.

Operating income results include year-on-year incremental strategic investments that decreased pre-tax earnings by approximately \$51 million and \$413 million in the fourth quarter and full year 2017, respectively. These incremental strategic investments are comprised of 3M’s investments in growth initiatives and optimization of its portfolio and supply chain footprint. Additional discussion on strategic investments is provided later within the “Divestitures and Strategic Investments” section.

In the fourth quarter of 2017, as a result of the Company’s regular review of its respirator mask/asbestos liabilities, the Company increased its accruals. This incremental increase resulted in a year-on-year decrease of 7 cents per diluted share. Refer to Note 15 for more details.

Foreign currency impacts (net of hedging) decreased pre-tax earnings by approximately \$3 million and \$111 million year-on-year in the fourth quarter and full year 2017, respectively, excluding the impact of foreign currency changes on tax rates. This had a minimal impact per diluted share in the fourth quarter of 2017, and is equivalent to a year-on-year decrease of 13 cents per diluted share for the full year 2017.

Weighted-average diluted shares outstanding in the fourth quarter and full year 2017 declined 0.1 percent and 1.0 percent year-on-year, respectively, which benefited earnings per share. The Company purchased \$504 million and \$2.1 billion of its own stock in the fourth quarter and full year 2017, respectively.

Other expense (income), net decreased earnings per share for both fourth quarter and full year 2017, largely due to the loss on extinguishment of debt, higher U.S. average balances, higher interest rates, and lower non-service cost related pension income. The early extinguishment of debt resulted in a charge of \$96 million, which contributed to a year-on-year decrease of 11 cents per diluted share for both the fourth quarter and full year 2017. Additionally, the portion of interest expense related to the financing costs of acquiring Scott Safety, which was equivalent to a year-on-year decrease of 2 cents per diluted share, is included in the acquisitions and divestitures impact described above.

As discussed in the section below, the Company recorded a net tax expense of \$762 million related to the enactment of the TCJA, which was equivalent to a decrease of \$1.25 per diluted share in the fourth quarter of 2017. The effective tax rate for the fourth quarter 2017 was 68.6 percent, an increase of 40.4 percentage points versus 2016. Excluding the impact of TCJA, the effective income tax rate was 23.0 percent in the fourth quarter 2017, a decrease of 5.2 percentage points versus 2016. For the full year 2017, the effective tax rate was 35.5 percent, an increase of 7.2 percentage points versus 2016. Excluding the impact of TCJA, the effective income tax rate was 25.4 percent in the full year 2017, a decrease of 2.9 percentage points versus 2016. Excluding the impact of TCJA, the fourth quarter and full year 2017 change in tax rate was driven largely by increasing benefits from our supply chain centers of expertise, favorable geographic mix and other items, as referenced in Note 9.

Income, earnings per share, and effective tax rate adjusted for impacts of the Tax Cuts and Jobs Act (TCJA) - (non-GAAP measures):

During the fourth quarter of 2017, 3M recorded a net tax expense of \$762 million related to the enactment of the Tax Cuts and Jobs Act (TCJA). The expense is primarily related to the TCJA’s transition tax on previously unremitted earnings of non-U.S. subsidiaries and is net of remeasurement of 3M’s deferred tax assets and liabilities considering the TCJA’s newly enacted tax rates and certain other impacts. This provisional amount is subject to adjustment during the measurement period of up to one year following the December 2017 enactment of the TCJA, as provided by recent SEC guidance. See additional information in Note 9. In addition to reporting financial results in accordance with U.S. GAAP, the Company also provides non-GAAP measures that adjust for the net impact of enactment of the TCJA. This item represents a significant charge that impacted the Company’s financial results. Income, earnings per share, and the effective tax rate are all measures for which 3M provides the reported GAAP measure and an adjusted measure. The adjusted measures are not in accordance with, nor are they a substitute for, GAAP measures. The Company considers these non-GAAP measures in evaluating and managing the Company’s operations. The Company believes that discussion of results adjusted for this item is meaningful to investors as it provides a useful analysis of ongoing

underlying operating trends. The determination of this item may not be comparable to similarly titled measures used by other companies.

Adjusted income, earnings per share, & effective tax rate (non-GAAP measures) (Dollars in millions, except per share amounts)	Three months ended December 31, 2017			
	Q4 2016	Q4 2017		
	Reported GAAP Measure	Reported GAAP Measure	Adjustment for TCJA	Adjusted Non-GAAP Measure
Operating income	\$ 1,616	\$ 1,789	\$ —	\$ 1,789
Income before taxes	\$ 1,610	\$ 1,672	\$ —	\$ 1,672
Provision for income taxes	\$ 454	\$ 1,147	\$ (762)	\$ 385
Effective tax rate	28.2 %	68.6 %		23.0 %
Net income attributable to 3M	\$ 1,155	\$ 523	\$ 762	\$ 1,285
Earnings per diluted share	\$ 1.88	\$ 0.85	\$ 1.25	\$ 2.10
Earnings per diluted share percent change		(54.8)%		11.7 %

Adjusted income, earnings per share, & effective tax rate (non-GAAP measures) (Dollars in millions, except per share amounts)	Year ended December 31, 2017			
	Year End 2016	Year End 2017		
	Reported GAAP Measure	Reported GAAP Measure	Adjustment for TCJA	Adjusted Non-GAAP Measure
Operating income	\$ 7,027	\$ 7,692	\$ —	\$ 7,692
Income before taxes	\$ 7,053	\$ 7,548	\$ —	\$ 7,548
Provision for income taxes	\$ 1,995	\$ 2,679	\$ (762)	\$ 1,917
Effective tax rate	28.3 %	35.5 %		25.4 %
Net income attributable to 3M	\$ 5,050	\$ 4,858	\$ 762	\$ 5,620
Earnings per diluted share	\$ 8.16	\$ 7.93	\$ 1.24	\$ 9.17
Earnings per diluted share percent change		(2.8)%		12.4 %

Year 2016 EPS:

For total year 2016, organic growth and other items decreased earnings, impacted by flat organic sales and lower asset utilization. This was partially offset by lower defined benefit pension and postretirement service cost expenses, higher selling prices, lower raw material costs, and productivity benefits related to the fourth quarter 2015 restructuring.

Acquisition and divestiture impacts, which are measured for the first twelve months post-transaction, related to the acquisitions of Membrana and Capital Safety (third quarter 2015) and Semfinder (September 2016), and the divestitures of Polyfoam (first quarter 2016), the library systems business (fourth quarter 2015/first quarter 2016), and the license plate converting business in France (fourth quarter 2015). In addition, in the fourth quarter of 2016, 3M sold the assets of its protective films business and its cathode battery technology out-licensing business. On a combined basis, these acquisition/divestiture year-on-year impacts resulted in a 14 cents per diluted share benefit to earnings per share in 2016, driven by solid performances from 2015 acquisitions and year-on-year divestiture gains. Refer to Note 2 for further discussion of these acquisition/divestiture impacts.

Restructuring actions (included within incremental strategic investments in the preceding table) resulted in an after-tax charge of 14 cents per diluted share in 2015, which provided a year-on-year benefit in 2016.

Foreign exchange impacts (net of hedging) decreased pre-tax earnings by approximately \$127 million year-on-year in 2016, excluding the impact of foreign currency changes on tax rates. This was equivalent to a year-on-year decrease of 14 cents per diluted share for 2016.

Weighted-average diluted shares outstanding in 2016 declined 3 percent versus 2015, which benefited earnings per share. The benefits from share repurchases, net of issuances, were partially offset by the adoption of ASU No. 2016-09, which increased the calculated number of diluted shares in 2016.

Other expense (income), net provided a year-on-year benefit in 2016 versus 2015 due to non-service related pension and postretirement income in 2016 compared to expense in 2015 (refer to Note 5). This was partially offset by higher average debt balances, which increased interest expense.

The income tax rate was 28.3 percent in 2016, a decline of 0.8 percentage points versus last year. The 2016 change in tax rate was driven by a number of factors as referenced in Note 9, including the first quarter 2016 adoption of Accounting Standards Update (ASU) No. 2016-09 (discussed in Note 1).

Fourth quarter 2017 sales and operating income by business segment:

The following tables contain sales and operating income results by business segment for the fourth quarters of 2017 and 2016, followed by additional discussion of business segment results.

(Dollars in millions)	Three months ended December 31, 2017			Three months ended December 31, 2016			2017 vs 2016 % change	
	Net Sales	% of Total	Oper. Income	Net Sales	% of Total	Oper. Income	Net Sales	Oper. Income
Business Segments								
Industrial	\$ 2,961	37.1 %	\$ 580	\$ 2,742	37.4 %	\$ 588	8.0 %	(1.4)%
Safety and Graphics	1,565	19.6	405	1,358	18.5	265	15.2	52.8
Health Care	1,484	18.6	460	1,400	19.1	405	6.0	13.5
Electronics and Energy	1,405	17.6	366	1,252	17.1	354	12.2	3.3
Consumer	1,210	15.1	272	1,117	15.2	226	8.4	20.4
Corporate and Unallocated	(3)	—	(139)	2	—	(93)	—	—
Elimination of Dual Credit	(632)	(8.0)	(155)	(542)	(7.3)	(129)	—	—
Total Company	\$ 7,990	100.0 %	\$ 1,789	\$ 7,329	100.0 %	\$ 1,616	9.0 %	10.7 %

Worldwide Sales Change Analysis By Business Segment	Three months ended December 31, 2017				Total sales change
	Organic local- currency sales	Acquisitions	Divestitures	Translation	
Industrial	5.2 %	— %	— %	2.8 %	8.0 %
Safety and Graphics	11.0	10.1	(9.0)	3.1	15.2
Health Care	3.2	0.1	—	2.7	6.0
Electronics and Energy	10.7	—	(0.2)	1.7	12.2
Consumer	6.6	—	—	1.8	8.4
Total Company	6.0 %	1.8 %	(1.5)%	2.7 %	9.0 %

From a business segment perspective, 3M achieved both total sales growth and organic local-currency sales growth (which includes organic volume and selling price impacts) in all five business segments. Operating income margins were 22.4 percent, with four of five business segments above 22 percent.

- In Industrial, total sales increased 8.0 percent, or 5.2 percent on an organic local currency basis, with organic sales growth in abrasives, automotive and aerospace solutions, industrial adhesives and tapes, automotive aftermarket, and separation and purification. Organic sales declined in advanced materials. Operating income margins were 19.6 percent, down 1.9 percentage points, with the decline driven by incremental strategic investments and a fourth quarter 2016 gain on sale of the temporary protective films business.
- In Safety and Graphics, total sales increased 15.2 percent, or 11.0 percent on an organic local currency basis. Organic sales grew in all businesses, led by personal safety, roofing granules, and transportation safety.

Operating income margins were 25.9 percent, up 6.3 percentage points, with 2.4 percentage points of this increase driven by divestitures, partially offset by acquisitions and incremental strategic investments.

- In Health Care, total sales increased 6.0 percent, or 3.2 percent on an organic local currency sales basis. Organic sales grew in food safety, health information systems, medical consumables, and oral care. Organic sales declined in drug delivery systems. Operating income margins were 31.0 percent, up 2.1 percentage points.
- In Electronics and Energy, total sales increased 12.2 percent, or 10.7 percent on an organic local currency basis. Electronics-related organic sales increased 14 percent, with growth in both electronics materials solutions and display materials and systems. Energy-related organic sales increased 4 percent as growth in electrical markets was partially offset by declines in telecommunications markets. Operating income margins were 26.0 percent, down 2.2 percentage points. The fourth quarter 2016 gain on sale of intellectual property and fourth quarter 2017 incremental strategic investments negatively impacted operating income margins by 3.1 percentage points.
- In Consumer, total sales increased 8.4 percent, or 6.6 percent on an organic local currency basis. Organic sales grew in all businesses, led by consumer health care, home improvement, and stationery and office. Operating income margins were 22.4 percent, up 2.2 percentage points.

Year 2017 sales and operating income by business segment:

The following tables contain sales and operating income results by business segment for the years ended December 31, 2017 and 2016. Refer to the section entitled “Performance by Business Segment” later in MD&A for additional discussion concerning both 2017 versus 2016 results and 2016 versus 2015 results, including Corporate and Unallocated. Refer to Note 17 for additional information on business segments, including Elimination of Dual Credit.

(Dollars in millions)	2017			2016			2017 vs 2016 % change	
	Net Sales	% of Total	Oper. Income	Net Sales	% of Total	Oper. Income	Net Sales	Oper. Income
Business Segments								
Industrial	\$ 11,866	37.5 %	\$ 2,490	\$ 11,217	37.3 %	\$ 2,528	5.8 %	(1.5)%
Safety and Graphics	6,235	19.7	2,066	5,948	19.8	1,403	4.8	47.2
Health Care	5,853	18.5	1,764	5,606	18.6	1,731	4.4	1.9
Electronics and Energy	5,501	17.4	1,377	4,926	16.4	1,145	11.7	20.3
Consumer	4,731	14.9	1,004	4,578	15.2	1,054	3.3	(4.8)
Corporate and Unallocated	3	—	(395)	6	—	(321)	—	—
Elimination of Dual Credit	(2,532)	(8.0)	(614)	(2,172)	(7.3)	(513)	—	—
Total Company	\$ 31,657	100.0 %	\$ 7,692	\$ 30,109	100.0 %	\$ 7,027	5.1 %	9.5 %

Worldwide Sales Change By Business Segment	Year ended December 31, 2017				Total sales change
	Organic local- currency sales	Acquisitions	Divestitures	Translation	
Industrial	5.8 %	— %	(0.5)%	0.5 %	5.8 %
Safety and Graphics	6.3	2.2	(4.2)	0.5	4.8
Health Care	3.9	—	—	0.5	4.4
Electronics and Energy	11.6	—	(0.2)	0.3	11.7
Consumer	2.7	—	—	0.6	3.3
Total Company	5.2 %	0.4 %	(1.0)%	0.5 %	5.1 %

Fourth-quarter 2017 sales results by geographic area/business segment:

Percent change information compares the fourth quarter 2017 with the same period last year, unless otherwise indicated. From a geographic perspective, any references to EMEA refer to Europe, Middle East and Africa on a combined basis.

	Three months ended December 31, 2017					
	United States	Asia Pacific	Europe, Middle East & Africa	Latin America/Canada	Other Unallocated	Worldwide
Net sales (millions)	\$ 3,081	\$ 2,474	\$ 1,684	\$ 756	\$ (5)	\$ 7,990
% of worldwide sales	38.5 %	31.0 %	21.1 %	9.4 %	—	100.0 %
Components of net sales change:						
Volume — organic	3.1 %	12.0 %	5.4 %	1.2 %	—	5.8 %
Price	(0.3)	(0.1)	1.4	1.3	—	0.2
Organic local-currency sales	2.8	11.9	6.8	2.5	—	6.0
Acquisitions	2.2	0.7	3.2	0.7	—	1.8
Divestitures	(2.0)	(0.7)	(1.7)	(1.5)	—	(1.5)
Translation	—	2.5	8.8	2.3	—	2.7
Total sales change	3.0 %	14.4 %	17.1 %	4.0 %	—	9.0 %
Total sales change:						
Industrial	0.5 %	12.4 %	16.2 %	8.2 %	—	8.0 %
Safety and Graphics	9.8 %	22.6 %	27.8 %	(0.5)%	—	15.2 %
Health Care	1.1 %	14.2 %	11.5 %	6.2 %	—	6.0 %
Electronics and Energy	6.0 %	15.2 %	13.1 %	0.8 %	—	12.2 %
Consumer	4.7 %	16.2 %	16.1 %	8.4 %	—	8.4 %
Organic local-currency sales change:						
Industrial	0.5 %	9.8 %	7.9 %	6.4 %	—	5.2 %
Safety and Graphics	9.4 %	19.8 %	12.5 %	0.3 %	—	11.0 %
Health Care	1.0 %	10.8 %	3.2 %	3.9 %	—	3.2 %
Electronics and Energy	7.1 %	14.0 %	5.8 %	(1.4)%	—	10.7 %
Consumer	4.7 %	12.9 %	7.7 %	5.7 %	—	6.6 %

Additional information beyond what is included in the preceding table is as follows:

- In the Asia Pacific geographic area, where 3M's Electronics and Energy business is concentrated, sales benefited from strengthened demand across most electronics market segments in addition to strong growth in 3M's Safety and Graphics business. In China/Hong Kong, total sales increased 21 percent and organic local-currency sales increased 18 percent. In Japan, total sales increased 6 percent, as organic local-currency sales growth of 7 percent was partially offset by foreign currency translation impacts.
- In the EMEA geographic area, Central/East Europe and Middle East/Africa had total sales increase by 14 percent, with organic local-currency sales increases of 11 percent. West Europe total sales grew 18 percent, driven by foreign currency translation impacts, in addition to organic local-currency sales growth of 6 percent.
- In the Latin America/Canada geographic area, total sales increased 7 percent in Mexico, driven by foreign currency translation impacts, in addition to organic local-currency sales growth of 3 percent. In Canada, total sales increased 13 percent, driven by organic local-currency sales growth of 8 percent. In Brazil, total sales and organic local-currency sales increased 3 percent.

Selling prices were up 0.2 percent year-on-year for the fourth quarter of 2017. In Asia Pacific, strong volume growth in electronics had a negative impact on price. EMEA and Latin America/Canada had price growth, while U.S. selling prices declined slightly.

Year 2017 sales results by geographic area/business segment:

Percent change information compares the full year 2017 with the same period last year, unless otherwise indicated. Additional discussion of business segment results is provided in the Performance by Business Segment section.

	Year ended December 31, 2017					
	United States	Asia Pacific	Europe, Middle East & Africa	Latin America/Canada	Other Unallocated	Worldwide
Net sales (millions)	\$ 12,372	\$ 9,809	\$ 6,456	\$ 3,033	\$ (13)	\$ 31,657
% of worldwide sales	39.1 %	31.0 %	20.4 %	9.5 %	—	100.0 %
Components of net sales change:						
Volume — organic	2.8 %	11.5 %	2.5 %	2.5 %	—	5.2 %
Price	(0.3)	(0.3)	0.7	1.1	—	—
Organic local-currency sales	2.5	11.2	3.2	3.6	—	5.2
Acquisitions	0.5	0.2	0.7	0.2	—	0.4
Divestitures	(1.5)	(0.4)	(0.8)	(1.4)	—	(1.0)
Translation	—	(0.1)	1.7	2.2	—	0.5
Total sales change	1.5 %	10.9 %	4.8 %	4.6 %	—	5.1 %
Total sales change:						
Industrial	3.1 %	8.7 %	6.5 %	6.8 %	—	5.8 %
Safety and Graphics	1.3 %	10.0 %	8.3 %	0.6 %	—	4.8 %
Health Care	3.7 %	8.5 %	1.5 %	9.1 %	—	4.4 %
Electronics and Energy	1.2 %	17.2 %	2.2 %	3.1 %	—	11.7 %
Consumer	0.2 %	12.4 %	2.2 %	7.1 %	—	3.3 %
Organic local-currency sales change:						
Industrial	3.9 %	9.3 %	5.1 %	5.3 %	—	5.8 %
Safety and Graphics	4.2 %	11.6 %	6.5 %	2.5 %	—	6.3 %
Health Care	3.7 %	8.4 %	0.3 %	6.8 %	—	3.9 %
Electronics and Energy	2.2 %	17.3 %	0.1 %	1.4 %	—	11.6 %
Consumer	0.2 %	11.7 %	0.4 %	4.3 %	—	2.7 %

Additional information beyond what is included in the preceding table is as follows:

- In the Asia Pacific geographic area, where 3M's Electronics and Energy business is concentrated, sales benefited from strengthened demand across most electronics market segments, in addition to strong growth in 3M's Safety and Graphics business. Total sales in China/Hong Kong grew 16 percent and Japan grew 5 percent. On an organic local-currency sales basis, China/Hong Kong grew 18 percent and Japan grew 8 percent.
- In the EMEA geographic area, Central/East Europe and Middle East/Africa total sales grew 5 percent, with organic local-currency sales growth of 4 percent. West Europe total sales grew 5 percent, with organic local-currency sales growth of 3 percent along with an increase related to foreign currency translation.
- In the Latin America/Canada geographic area, total sales increased 4 percent in Mexico, as organic local-currency sales growth of 6 percent was partially offset by divestitures. In Canada, total sales increased 8 percent, with organic-local currency sales growth of 7 percent. In Brazil total sales growth of 9 percent was driven by foreign currency translation, while organic local-currency sales increased 2 percent.

Foreign currency translation increased year-on-year sales by 0.5 percent, with the translation-related sales increase in Latin America/Canada and EMEA partially offset by the decreases in Asia Pacific. Selling prices were flat year-on-year for 2017. In Asia Pacific, strong volume growth in electronics had a negative impact on price. Latin America/Canada and EMEA had price growth, while the U.S. selling prices declined slightly.

Year 2016 sales results by geographic area/business segment:

Percent change information compares the full year 2016 with the full year 2015, unless otherwise indicated. Additional discussion of business segment results is provided in the Performance by Business Segment section.

	Year ended December 31, 2016					
	United States	Asia Pacific	Europe, Middle East & Africa	Latin America/Canada	Other Unallocated	Worldwide
Net sales (millions)	\$ 12,188	\$ 8,847	\$ 6,163	\$ 2,901	\$ 10	\$ 30,109
% of worldwide sales	40.5 %	29.4 %	20.5 %	9.6 %	—	100.0 %
Components of net sales change:						
Volume — organic	0.7 %	(2.5)%	(0.6)%	(2.4)%	—	(0.8)%
Price	(0.2)	(0.3)	1.0	6.1	—	0.7
Organic local-currency sales	0.5	(2.8)	0.4	3.7	—	(0.1)
Acquisitions	1.3	0.7	1.7	1.3	—	1.2
Divestitures	(0.6)	(0.2)	(0.7)	(0.3)	—	(0.4)
Translation	—	0.2	(2.5)	(7.4)	—	(1.2)
Total sales change	1.2 %	(2.1)%	(1.1)%	(2.7)%	—	(0.5)%
Total sales change:						
Industrial	(1.6)%	(0.2)%	2.9 %	(3.3)%	—	(0.2)%
Safety and Graphics	6.9 %	1.2 %	(2.8)%	0.1 %	—	2.4 %
Health Care	3.0 %	8.1 %	(2.3)%	(1.3)%	—	2.1 %
Electronics and Energy	(1.8)%	(11.7)%	(2.6)%	(9.1)%	—	(8.7)%
Consumer	2.4 %	7.6 %	(7.8)%	(5.9)%	—	1.3 %
Organic local-currency sales change:						
Industrial	(2.1)%	(1.6)%	1.9 %	2.7 %	—	(0.4)%
Safety and Graphics	2.9 %	0.9 %	0.2 %	4.2 %	—	2.1 %
Health Care	2.6 %	7.9 %	1.3 %	6.6 %	—	3.6 %
Electronics and Energy	(1.8)%	(11.7)%	(1.0)%	(2.3)%	—	(8.2)%
Consumer	2.4 %	6.4 %	(5.9)%	(0.2)%	—	1.9 %

Sales totaled \$30.1 billion, a decrease of 0.5 percent from 2015. Organic local-currency sales declined 0.1 percent, with organic volume declines of 0.8 percent largely offset by selling price increases of 0.7 percent. Acquisitions added 1.2 percent to sales, while divestitures reduced sales by 0.4 percent. Foreign currency translation reduced sales by 1.2 percent year-on-year.

Total sales increased 1.2 percent in the United States, and declined 1.1 percent in EMEA, 2.1 percent in Asia Pacific, and 2.7 percent in Latin America/Canada. Organic local-currency sales grew 3.7 percent in Latin America/Canada, 0.5 percent in the United States, 0.4 percent in EMEA, and declined 2.8 percent in Asia Pacific.

Financial condition:

3M generated \$6.2 billion of operating cash flow in 2017, a decrease of \$422 million when compared to 2016. This followed an increase of \$242 million when comparing 2016 to 2015. Refer to the section entitled “Financial Condition and Liquidity” later in MD&A for a discussion of items impacting cash flows. In February 2016, 3M’s Board of Directors authorized the repurchase of up to \$10 billion of 3M’s outstanding common stock. This program has no pre-established end date. In 2017, the Company purchased \$2.1 billion of its own stock, compared to purchases of \$3.8 billion in 2016 and \$5.2 billion in 2015. The Company expects to purchase \$2.0 billion to \$5.0 billion of its own stock in 2018. In January 2018, 3M’s Board of Directors declared a first-quarter 2018 dividend of \$1.36 per share, an increase of 16 percent. This marked the 60th consecutive year of dividend increases for 3M. The Company has an AA- credit rating,

with a stable outlook, from Standard & Poor's and an A1 credit rating, with a stable outlook, from Moody's Investors Service. The Company generates significant ongoing cash flow and has proven access to capital markets funding throughout business cycles.

Raw materials:

In 2017, the Company continued to manage year-on-year raw material input costs, benefiting from input management, reformulations, and multi-sourcing activities. These efforts more than offset increasing costs in certain raw material categories in oil-derivative chemical feedstock markets. Oil-derivative cost increases also impact other feedstock categories, including petroleum based materials, minerals, metals and wood pulp based products. To date, the Company is receiving sufficient quantities of all raw materials to meet its reasonably foreseeable production requirements. It is difficult to predict future shortages of raw materials or the impact any such shortages would have. 3M has avoided disruption to its manufacturing operations through careful management of existing raw material inventories, strategic relationships with key suppliers, and development and qualification of additional supply sources. 3M manages spend category price risks through negotiated supply contracts, price protection agreements and commodity price swaps.

Pension and postretirement defined benefit/contribution plans:

On a worldwide basis, 3M's pension and postretirement plans were 87 percent funded at year-end 2017. The primary U.S. qualified pension plan, which is approximately 67 percent of the worldwide pension obligation, was 94 percent funded and the international pension plans were 90 percent funded. The U.S. non-qualified pension plan is not funded due to tax considerations and other factors. Asset returns in 2017 for the primary U.S. qualified pension plan were 12.4%, as 3M strategically invests in both growth assets and fixed income matching assets to manage its funded status. For the primary U.S. qualified pension plan, the expected long-term rate of return on an annualized basis for 2018 is 7.25%, consistent with 2017. The primary U.S. qualified pension plan year-end 2017 discount rate was 3.68%, down 0.53 percentage points from the year-end 2016 discount rate of 4.21%. The decrease in U.S. discount rates resulted in an increased valuation of the projected benefit obligation (PBO). The primary U.S. qualified pension plan's funded status increased 4 percentage points in 2017 as strong plan assets returns and \$800 million in contributions increased asset values in excess of the higher PBO due to the significant discount rate decline. Additional detail and discussion of international plan asset returns and discount rates is provided in Note 12 (Pension and Postretirement Benefit Plans).

3M expects to contribute approximately \$300 million to \$500 million of cash to its global defined benefit pension and postretirement plans in 2018. The Company does not have a required minimum cash pension contribution obligation for its U.S. plans in 2018. 3M expects global defined benefit pension and postretirement expense in 2018 (before settlements, curtailments, special termination benefits and other) to increase by approximately \$76 million pre-tax when compared to 2017, which is comprised of \$26 million of service cost expense that will be recognized within operating expense and \$50 million of non-service cost related pension and postretirement expense that will be recognized within other expense (income), net. Refer to "Critical Accounting Estimates" within MD&A and Note 12 (Pension and Postretirement Benefit Plans) for additional information concerning 3M's pension and post-retirement plans.

Divestitures and strategic investments:

In both the fourth quarter and full year of 2017, the Company continued to accelerate investments in growth initiatives and footprint optimization. In addition, the Company divested certain businesses as it continued to focus its portfolio on opportunities that create greater value for its shareholders. As shown below, these divestitures and strategic investments led to a net year-on-year decrease of approximately \$0.01 per diluted share and a benefit of \$0.10 per diluted share, respectively, for the three months and year ended December 31, 2017:

Divestiture impacts and strategic investments net benefit/(cost) (in millions, except per share amounts)	Three months ended December 31, 2017		Year ended December 31, 2017	
	Pre-tax impact	Impact per diluted share after-tax	Pre-tax impact	Impact per diluted share after-tax
Divestiture impacts:				
2017 divestiture gains	\$ 96		\$ 586	
Less: prior year divestiture gains	(71)		(111)	
Year-on-year lost operating loss/(income) from divested businesses	1		(1)	
Year-on-year divestiture impacts, net of operating loss/(income)	\$ 26	\$ 0.05	\$ 474	\$ 0.61
Strategic investments:				
2017 portfolio and footprint optimization activities:				
Restructuring actions and exit activities, net of adjustments	\$ (20)		\$ (143)	
Asset charges and accelerated depreciation	(40)		(180)	
Other costs	(4)		(30)	
Less: prior year portfolio and footprint optimization activities	19		40	
Year-on-year portfolio and footprint optimization	(45)		(313)	
Incremental year-on-year growth initiatives	(6)		(100)	
Total incremental strategic investments	\$ (51)	\$ (0.06)	\$ (413)	\$ (0.51)
Year-on-year divestiture impacts and strategic investments net benefit/(cost)	\$ (25)	\$ (0.01)	\$ 61	\$ 0.10

The total pre-tax year-on-year divestiture impacts, net of strategic investments from the table above, are further detailed below by business group:

(Millions)	Three months ended December 31, 2017	Year ended December 31, 2017
Industrial	\$ (79)	\$ (193)
Safety and Graphics	93	553
Health Care	6	(43)
Electronics and Energy	(40)	(120)
Consumer	2	(86)
Corporate and Unallocated	(7)	(50)
Total pretax divestiture gains, net of strategic investments	\$ (25)	\$ 61

2017 announced and 2018 closed divestitures:

In December 2017, 3M announced it had reached an agreement to sell substantially all of its Communications Markets Division, which consists of optical fiber and copper passive connectivity solutions, structured cabling solutions, and telecommunications system integration services. The business has annual global sales of approximately \$400 million. The Company expects a pre-tax gain of approximately \$500 million in 2018 as a result of this divestiture. 3M expects to realize a gain of approximately \$0.40 per diluted share from this transaction, net of actions related to this divestiture. Refer to Note 2 for additional discussion.

In February 2018, 3M closed on the sale of certain personal safety product offerings primarily focused on noise, environmental, and heat stress monitoring. This business has annual sales of approximately \$15 million. The transaction is expected to result in a pre-tax gain of less than \$20 million that will be reported within the Company's Safety and Graphics business. Refer to Note 2 for additional discussion.

RESULTS OF OPERATIONS

Net Sales:

Refer to the preceding “Overview” section and the “Performance by Business Segment” section later in MD&A for additional discussion of sales change.

Operating Expenses:

(Percent of net sales)	2017	2016	2015	2017 versus 2016	2016 versus 2015
Cost of sales	50.8 %	50.2 %	50.7 %	0.6 %	(0.5)%
Selling, general and administrative expenses	20.9	21.0	20.6	(0.1)	0.4
Research, development and related expenses	5.9	5.9	5.8	—	0.1
Gain on sale of businesses	(1.9)	(0.4)	(0.2)	(1.5)	(0.2)
Operating income margin	24.3 %	23.3 %	23.1 %	1.0 %	0.2 %

Operating income margins increased in 2017 versus 2016, driven by gains from sale of businesses, partially offset by cost of sales increases. A number of factors impact the various income statement line items, such as raw material cost management, strategic investments, divestitures, foreign currency, cost management, and pension and postretirement service cost effects. Expanded discussion of each of the income statement line items follows in the various sections below. Pension and postretirement service cost expense is recorded within cost of sales; selling, general and administrative expenses (SG&A); and research, development and related expenses (R&D). In total, 3M’s defined benefit pension and postretirement service cost expense increased \$16 million in 2017, compared to a decrease of \$76 million in 2016. Refer to Note 12 (Pension and Postretirement Plans) for components of net periodic benefit cost and the assumptions used to determine net cost.

The Company is investing in business transformation. Business transformation is defined as changes in processes and internal/external service delivery across 3M to move to more efficient business models to improve operational efficiency and productivity, while allowing 3M to serve customers with greater speed and efficiency. This is enabled by the ongoing multi-year phased implementation of an enterprise resource planning (ERP) system on a worldwide basis.

In 2017, as referenced above in the “Divestitures and strategic investments” section, 3M incurred \$413 million in incremental strategic actions, primarily reported within the cost of sales and SG&A income statement line items.

Of these strategic investments, 3M incurred \$96 million (net of adjustments) in restructuring actions and \$47 million in exit activities during 2017. In addition, in the fourth quarter of 2015, 3M incurred \$114 million in restructuring charges. Refer to Note 4 for additional information on the impact to operating expenses.

Cost of Sales:

Cost of sales includes manufacturing, engineering and freight costs.

Cost of sales as a percent of sales increased during 2017 due to incremental strategic investments in productivity, portfolio actions and footprint optimization, foreign currency effects (net of hedge impacts) and higher defined benefit pension service cost expense. This was partially offset by a year-on-year reduction in raw material input costs as a result of sourcing cost reduction projects. Selling prices were flat year-on-year for the full year 2017.

Cost of sales as a percent of sales decreased in 2016 due to the combination of selling price increases and raw material cost decreases, as selling prices increased net sales by 0.7 percent and raw material cost deflation was favorable by approximately 3.5 percent year-on-year. In addition, cost of sales as a percent of sales benefited from lower defined benefit pension and postretirement service cost expense. Fourth quarter 2015 restructuring charges also provided a favorable year-on-year comparison.

Selling, General and Administrative Expenses:

SG&A increased \$315 million year-on year, or 5.0 percent, during 2017 due to incremental strategic investments and higher defined benefit pension service cost expense. SG&A increased \$78 million, or 1.2 percent, in 2016 when compared to 2015, with 2016 results benefiting from foreign currency translation, and productivity benefits related to the fourth quarter 2015 restructuring.

Research, Development and Related Expenses:

R&D increased \$106 million and increased \$7 million year-on-year in 2017 and 2016, respectively. 3M continued to invest in its key initiatives, including R&D aimed at disruptive innovation programs with the potential to create entirely new markets and disrupt existing markets. R&D, measured as a percent of sales, was 5.9 percent in both 2017 and 2016 and 5.8 percent in 2015.

Gain on Sale of Businesses:

In 2017, 3M sold the assets of its safety prescription eyewear business, completed the related sale or transfer of control, as applicable, of its identity management business, sold its tolling and automated license/number plate recognition and electronic monitoring businesses, and sold the assets of its electrical marking/labeling business. On a combined basis, these divestitures resulted in a gain on the sale of businesses of \$586 million. 3M also divested certain businesses in 2016 and 2015, resulting in gains of \$111 million and \$47 million, respectively. Refer to Note 2 for additional detail on these divestitures.

Operating Income Margin:

3M uses operating income as one of its primary business segment performance measurement tools. Refer to the table below for a reconciliation of operating income margins for 2017 and 2016.

(Percent of net sales)	Three months ended	Year ended	
	December 31, 2017	December 31, 2017	December 31, 2016
Same period last year	22.0 %	23.3 %	23.1 %
Increase/(decrease) in operating income margin, due to:			
Organic volume/other productivity	1.8	1.2	(1.1)
Acquisitions and divestitures	(0.3)	1.4	0.2
Incremental strategic investments	(0.7)	(1.4)	0.1
Selling price and raw material impact	0.4	0.4	1.0
Foreign exchange impacts	(0.6)	(0.5)	(0.3)
Pension and postretirement benefit service costs	(0.2)	(0.1)	0.3
Current period	22.4 %	24.3 %	23.3 %

Year 2017 and fourth quarter operating income:

Operating income margins increased 0.4 percentage points in the fourth quarter of 2017 and increased 1.0 percentage points for the full year 2017 when compared to the same periods last year. 3M benefited from higher organic local-currency sales growth and productivity, partially offset by actuarial adjustments to the Company's respirator mask/asbestos liability accrual. Acquisitions and divestitures consist of the transactions and integration costs, net of income, that relate to the acquisition of Scott Safety, in addition to the year-on-year divestiture gains (refer to Note 2) and non-repeating operating losses from divested businesses, which combined, reduced operating margins in the fourth quarter of 2017 and benefited operating income margins for the full year 2017. Items that reduced operating margins were incremental strategic investments in growth, productivity and portfolio actions, in addition to charges related to 3M's optimization of its portfolio and supply chain footprint. For full year 2017, the benefit from year-on-year divestiture gains and non-repeating net operating losses from divested businesses (primarily related to the sale of Identity Management) was partially offset by the impact of the Scott Safety acquisition noted earlier. 3M also benefited from raw

material sourcing cost reduction projects. Lastly, operating margins were reduced by foreign currency effects (net of hedge impacts) and higher year-on-year defined benefit pension service cost expense.

Year 2016 operating income:

Operating income margins were 23.3 percent in 2016 compared to 23.1 percent in 2015, an increase of 0.2 percentage points. 3M benefited from the combination of higher selling prices and lower raw material costs, plus lower year-on-year defined benefit pension and postretirement service cost expense. Acquisitions and divestitures had a favorable impact on operating margins. This included solid performances from both the Capital Safety and Membrana acquisitions. Divestiture impacts relate to the Polyfoam business, the library systems business, and the license plate converting business in France. In addition, in the fourth quarter of 2016, 3M sold the assets of its protective films business and its cathode battery technology out-licensing business. Items that reduced operating income margins included 2016 strategic investments, as 3M took actions to better optimize its manufacturing footprint and accelerated growth investments across its businesses. Foreign currency impacts (net of hedging) also reduced operating income margins. Organic volume, productivity, and other decreased operating margins as a result of lower asset utilization, primarily in the Industrial, and Electronics and Energy businesses. Also, 3M had an unfavorable arbitration ruling on an insurance claim, commercial litigation settlements related to Andover Healthcare and TransWeb, and accruals for respirator mask/asbestos liabilities. These declines within organic volume, productivity, and other were partially offset by 2015 restructuring charges, which provided a favorable year-on-year comparison, and productivity benefits in 2016 related to the 2015 restructuring actions.

Other Expense (Income), Net:

See Note 5 for a detailed breakout of this line item.

Interest expense increased during 2017 and 2016 due to higher average debt balances and higher U.S. borrowing costs. In addition, in October 2017, via cash tender offers, 3M repurchased \$305 million aggregate principal amount of its outstanding notes. The Company recorded an early debt extinguishment charge of \$96 million in the fourth quarter of 2017, which was included within interest expense. Capitalized interest related to property, plant and equipment construction in progress is recorded as a reduction to interest expense. Capitalized interest was \$12 million, \$10 million, and \$13 million, in 2017, 2016 and 2015, respectively.

Interest income increased year-on-year in both 2017 and 2016 due to higher average interest rates.

Effective January 1, 2018, in conjunction with 3M’s adoption of ASU No. 2017-07, all pension and postretirement net periodic benefit costs components (except the service cost component) are reported within other expense (income), net. For additional details refer to Note 1 (Significant Accounting Policies). This change was retrospectively applied to all periods presented. Year-on-year pension and postretirement net periodic benefit non-service cost increased \$68 million and decreased \$230 million in 2017 and 2016, respectively. The year-on-year increase in 2017 was primarily due to an increase in the net actuarial amortization expense, while the year-on-year decrease in 2016 was primarily due to a decrease in benefit plan interest costs.

Provision for Income Taxes:

(Percent of pre-tax income)	2017	2016	2015
Effective tax rate	35.5 %	28.3 %	29.1 %

The effective tax rate for 2017 was 35.5 percent, compared to 28.3 percent in 2016, an increase of 7.2 percentage points. The effective tax rate for 2016 was 28.3 percent, compared to 29.1 percent in 2015, a decrease of 0.8 percentage points. The changes in the tax rates between years were impacted by many factors, including the enactment of the Tax Cuts and Jobs Act (TCJA) in December 2017 as further described in the Overview, “Income, earnings per share, and effective tax rate adjusted for impacts of the Tax Cuts and Jobs Act (TCJA) -(non-GAAP measures)” section and in Note 9. During the fourth quarter of 2017, 3M recorded a net tax expense of \$762 million related to the enactment of the TCJA. The expense is primarily related to the TCJA’s transition tax on previously unremitted earnings of non-U.S. subsidiaries and

is net of remeasurement of 3M's deferred tax assets and liabilities considering the TCJA's newly enacted tax rates and certain other impacts. This provisional amount is subject to adjustment during the measurement period of up to one year following the December 2017 enactment of the TCJA, as provided by recent SEC guidance.

The TCJA establishes new tax laws that will also affect 2018 and future periods, including, but not limited to: 1) reduction of the U.S. federal corporate tax rate from 35 percent to 21 percent, 2) the creation of the base erosion anti-abuse tax (BEAT), 3) the creation of a new provision designed to tax global intangible low-taxed income (GILTI), 4) a general elimination of U.S. federal income taxes on dividends from foreign subsidiaries, 5) limitations on the use of foreign tax credits to reduce the U.S. income tax liability, 6) limitations on the deductibility of certain executive compensation, and 7) the repeal of the domestic production activity deduction. Considering the impacts of the TCJA and other factors, the Company currently estimates its effective tax rate for 2018 will be approximately 20 to 22 percent. The tax rate can vary from quarter to quarter due to discrete items, such as the settlement of income tax audits, changes in tax laws, measurement period adjustment effects on the provisional items and remaining analyses to complete noted in Note 9 related to the 2017 impact of the TCJA, employee share-based payment accounting; as well as recurring factors, such as the geographic mix of income before taxes.

Refer to Note 9 for further discussion of income taxes.

Net Income Attributable to Noncontrolling Interest:

(Millions)	2017	2016	2015
Net income attributable to noncontrolling interest	\$ 11	\$ 8	\$ 8

Net income attributable to noncontrolling interest represents the elimination of the income or loss attributable to non-3M ownership interests in 3M consolidated entities. The amount primarily relates to 3M India Limited, of which 3M's effective ownership is 75 percent.

Currency Effects:

3M estimates that year-on-year currency effects, including hedging impacts, decreased pre-tax income by \$111 million and \$127 million in 2017 and 2016, respectively. 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 3M operations in the United States and abroad; and transaction gains and losses, including derivative instruments designed to reduce foreign currency exchange rate risks. 3M estimates that year-on-year derivative and other transaction gains and losses decreased pre-tax income by approximately \$152 million and \$69 million in 2017 and 2016, respectively. Refer to Note 13 in the Consolidated Financial Statements for additional information concerning 3M's hedging activities.

PERFORMANCE BY BUSINESS SEGMENT

For a detailed discussion of the markets served and types of products offered by 3M's business segments, see Item 1, Business Segments. Financial information and other disclosures are provided in the Notes to the Consolidated Financial Statements. As part of 3M's continuing effort to improve the alignment of its businesses around markets and customers, the Company made the following changes, effective in the first quarter of 2018, and other revisions impacting business segment reporting:

Consolidation of customer account activity within international countries – expanding dual credit reporting

- The Company consolidated its customer account activity in each country into centralized sales districts for certain countries that make up approximately 70 percent of 3M's 2017 international net sales. Expansion of these initiatives, which previously had been deployed only in the U.S., reduces the complexity for customers when interacting with multiple 3M businesses. 3M business segment reporting measures include dual credit to business segments for certain sales and related operating income. This dual credit is based on which business segment provides customer account activity with respect to a particular product sold in a specific country. The expansion of alignment of customer accounts within additional countries increased the attribution of dual credit across 3M's business segments. Additionally, certain sales and operating income results for electronic bonding

product lines that were previously equally divided between the Electronics and Energy business segment and the Industrial business segment are now reported similarly to dual credit. As a result, previously reported aggregate business segment net sales and operating income for total year 2017 increased \$1.568 billion and \$402 million, respectively, offset by similar increases in the elimination of dual credit net sales and operating income amounts.

Centralization of manufacturing and supply technology platforms

- Certain shared film manufacturing and supply technology platform resources formerly reflected within the Electronics and Energy business segment were combined with other shared and centrally managed material resource centers of expertise within Corporate and Unallocated. This change resulted in a decrease in previously reported net sales and an increase in operating income for total year 2017 of \$1 million and \$42 million, respectively, in the Electronics and Energy segment, offset by a corresponding increase in net sales and decrease in operating income within Corporate and Unallocated.

In addition, 3M adopted ASU NO. 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*, effective January 1, 2018 on a retrospective basis. As a result, operating income for 3M's business segments has been revised to reflect non-service cost related pension and postretirement net periodic benefit costs within other expense (income), net.

Business segment information presented herein reflects the impact of these changes for all periods presented. 3M manages its operations in five business segments. The reportable segments are Industrial; Safety and Graphics; Health Care; Electronics and Energy; and Consumer.

Corporate and Unallocated:

In addition to these five business segments, 3M assigns certain costs to "Corporate and Unallocated," which is presented separately in the preceding business segments table and in Note 17. Corporate and Unallocated includes a variety of miscellaneous items, such as corporate investment gains and losses, certain derivative gains and losses, certain insurance-related gains and losses, certain litigation and environmental expenses, corporate restructuring charges and certain under- or over-absorbed costs (e.g. pension, stock-based compensation) that the Company determines not to allocate directly to its business segments. Because this category includes a variety of miscellaneous items, it is subject to fluctuation on a quarterly and annual basis.

Corporate and Unallocated operating expenses increased by \$74 million in 2017 when compared to 2016. In both the first and second quarters of 2017, a portion of the severance actions were reflected in Corporate and Unallocated. In the fourth quarter, an incremental \$58 million was reflected within Corporate and Unallocated related to the Company's actuarial adjustments to its respirator mask/asbestos liability accrual. In addition, 3M's defined benefit pension and postretirement service cost expense allocation to Corporate and Unallocated increased by approximately \$30 million in 2017.

Corporate and Unallocated operating expenses decreased by \$40 million in 2016 when compared to 2015. 3M's defined benefit pension and postretirement service cost expense allocation to Corporate and Unallocated decreased by \$223 million in 2016 when compared to 2015. In addition, the portion of the 2015 restructuring actions charged to corporate (\$37 million) provided a favorable year-on-year comparison. These decreases were partially offset by an increase in legal expenses related to an unfavorable second quarter 2016 arbitration ruling on an insurance claim, commercial litigation settlements related to Andover Healthcare and TransWeb, and accruals for respirator mask/asbestos liabilities.

Operating Business Segments:

Each of 3M's business segments were impacted by the following pre-tax amounts:

Incremental divestiture gains, net of strategic investments charges, by business segment:

(Millions)	2017
Industrial	(193)
Safety and Graphics	553
Health Care	(43)
Electronics and Energy	(120)
Consumer	(86)
Corporate and Unallocated	(50)
Total	\$ 61

Restructuring charge by business segment:

(Millions)	Fourth Quarter 2015
Industrial	42
Safety and Graphics	11
Health Care	9
Electronics and Energy	12
Consumer	3
Corporate and Unallocated	37
Total	\$ 114

Information related to 3M's business segments is presented in the tables that follow. Organic local-currency sales include both organic volume impacts plus selling price impacts. Acquisition and divestiture impacts, if any, are measured separately for the first twelve months post-transaction. Foreign currency translation impacts and total sales change are also provided for each business segment. Any references to EMEA relate to Europe, Middle East and Africa on a combined basis.

The following discusses total year results for 2017 compared to 2016 and 2016 compared to 2015, for each business segment. Refer to the preceding year 2017 and 2016 sales results by geographic area/business segment sections for additional sales change information.

Industrial Business (37.5% of consolidated sales):

	2017	2016	2015
Sales (millions)	\$ 11,866	\$ 11,217	\$ 11,243
Sales change analysis:			
Organic local-currency	5.8 %	(0.4)%	
Acquisitions	—	1.5	
Divestitures	(0.5)	(0.3)	
Translation	0.5	(1.0)	
Total sales change	5.8 %	(0.2)%	
Operating income (millions)	\$ 2,490	\$ 2,528	\$ 2,498
Percent change	(1.5)%	1.2 %	
Percent of sales	21.0 %	22.5 %	22.2 %

Year 2017 results:

Sales in Industrial totaled \$11.9 billion, up 5.8 percent in U.S. dollars. Organic local-currency sales increased 5.8 percent, divestitures reduced sales by 0.5 percent, and foreign currency translation increased sales by 0.5 percent.

On an organic local-currency sales basis:

- Sales grew in all businesses, led by advanced materials, abrasives, automotive and aerospace solutions, and industrial adhesives and tapes.

Acquisitions and divestitures:

- There were no acquisitions or divestitures that closed during 2017. The year-on-year divestiture sales change was due to the impact of 2016 activity.

Operating income:

- Operating income margins decreased 1.5 percentage points, as divestiture impacts related to the first quarter 2016 sale of the Polyfoam business resulted in a net year-on-year operating income margin reduction of 0.6 percentage points. In addition, incremental strategic investments decreased margins by 1.0 percentage points.

Year 2016 results:

Sales totaled \$11.2 billion, down 0.2 percent in U.S. dollars. Organic local-currency sales decreased 0.4 percent, acquisitions added 1.5 percent, divestitures reduced sales by 0.3 percent, and foreign currency translation reduced sales by 1.0 percent. The negative organic local-currency sales impact reflected economic challenges in the global industrial sector. Industrial rebounded in the fourth quarter of 2016, when it reflected 4.4 percent organic local-currency sales growth.

On an organic local-currency sales basis:

- Sales grew in automotive and aerospace solutions, automotive aftermarket, and separation and purification.
- Sales were flat in abrasives while sales declined in industrial adhesives and tapes.
- Sales also declined in advanced materials, primarily due to persistent weakness in the oil and gas end markets.

Acquisitions and divestitures:

- In October 2016, 3M sold the assets of its temporary protective films business.
- In January 2016, 3M completed its sale of 3M's pressurized polyurethane foam adhesives business (formerly known as Polyfoam).
- Acquisition sales growth in 2016 related to the acquisition of Membrana (closed in August 2015), a leading provider of microporous membranes and modules for filtration in the life sciences, industrial, and specialty segments.

Operating income:

- Operating income margins increased 0.3 percentage points, helped by the gain on sale of Polyfoam and its temporary protective films business, productivity benefits from fourth quarter 2015 restructuring actions, and lower raw materials costs.

Safety and Graphics Business (19.7% of consolidated sales):

	<u>2017</u>	<u>2016</u>	<u>2015</u>
Sales (millions)	\$ 6,235	\$ 5,948	\$ 5,808
Sales change analysis:			
Organic local-currency	6.3 %	2.1 %	
Acquisitions	2.2	3.8	
Divestitures	(4.2)	(1.8)	
Translation	0.5	(1.7)	
Total sales change	<u>4.8 %</u>	<u>2.4 %</u>	
Operating income (millions)	\$ 2,066	\$ 1,403	\$ 1,359
Percent change	47.2 %	3.3 %	
Percent of sales	<u>33.1 %</u>	<u>23.6 %</u>	<u>23.4 %</u>

Year 2017 results:

Sales in Safety and Graphics totaled \$6.2 billion, up 4.8 percent in U.S. dollars. Organic local-currency sales increased 6.3 percent, acquisitions increased sales by 2.2 percent, divestitures reduced sales by 4.2 percent, and foreign currency translation increased sales by 0.5 percent.

On an organic local-currency sales basis:

- Sales growth was led by personal safety and roofing granules.
- Transportation safety showed positive growth, while the commercial solutions business was flat.

Acquisitions and divestitures:

- In January 2017, 3M sold its safety prescription eyewear business.
- In the second quarter of 2017, 3M finalized the sale of its identity management business and tolling and automated license/number plate recognition business.
- In October 2017, 3M completed the acquisition of Scott Safety.
- Also in October 2017, 3M completed the sale of its electronic monitoring business.
- In February 2018, 3M closed on the sale of certain personal safety products primarily focused on noise, environmental, and heat stress monitoring.

Operating income:

- Operating income margins increased 9.5 percentage points, largely driven by year-on-year divestiture gains that were partially offset by acquisition charges and incremental strategic investments, which combined resulted in a net operating income margin benefit of 8.5 percentage points.

Year 2016 results:

Sales totaled \$5.9 billion, up 2.4 percent in U.S. dollars. Organic local-currency sales increased 2.1 percent, and foreign currency translation reduced sales by 1.7 percent. Acquisitions added 3.8 percent, while divestitures reduced sales by 1.8 percent.

On an organic local-currency sales basis:

- Sales growth was led by roofing granules, which had a consistently strong year.
- Commercial solutions and personal safety also showed positive growth.
- Sales declined in transportation safety (formerly traffic safety and security).

Acquisitions and divestitures:

- Acquisition sales growth reflected the acquisition of Capital Safety in August 2015. Capital Safety is a leading global provider of fall protection equipment.
- In the fourth quarter of 2015, 3M divested its license plate converting business in France and substantially all of its library systems business. In the first quarter of 2016, 3M divested the remainder of the library systems business.

Operating income:

- Operating income margins increased 0.2 percentage point, benefiting from higher selling prices and lower raw material costs, plus productivity benefits related to fourth quarter 2015 restructuring actions that were partially offset by margin dilution related to the Capital Safety acquisition, and divestiture impacts on margins.

Health Care Business (18.5% of consolidated sales):

	2017	2016	2015
Sales (millions)	\$ 5,853	\$ 5,606	\$ 5,490
Sales change analysis:			
Organic local-currency	3.9 %	3.6 %	
Acquisitions	—	0.2	
Translation	0.5	(1.7)	
Total sales change	4.4 %	2.1 %	
Operating income (millions)	\$ 1,764	\$ 1,731	\$ 1,749
Percent change	1.9 %	(1.1)%	
Percent of sales	30.1 %	30.9 %	31.9 %

Year 2017 results:

Sales in Health Care totaled \$5.9 billion, up 4.4 percent in U.S. dollars. Organic local-currency sales increased 3.9 percent and foreign currency translation increased sales by 0.5 percent.

On an organic local-currency sales basis:

- Sales increased in all businesses, led by drug delivery systems, food safety, and medical consumables (which is comprised of the critical and chronic care and infection prevention businesses).

Acquisitions:

- In September 2017, 3M acquired Elution Technologies, LLC, a manufacturer of food safety test kits.

Operating income:

- Operating income margins decreased 0.8 percentage points year-on-year, as incremental strategic investments, primarily related to accelerating future growth opportunities, reduced margins by 0.7 percentage points.

Year 2016 results:

Sales totaled \$5.6 billion, an increase of 2.1 percent in U.S. dollars. Organic local-currency sales increased 3.6 percent, acquisitions added 0.2 percent, and foreign currency translation reduced sales by 1.7 percent.

On an organic local-currency sales basis:

- Sales growth was broad-based across the entire Health Care portfolio, led by food safety, critical and chronic care, and drug delivery systems.
- In developing markets, Health Care organic local-currency sales grew 7 percent.
- 3M continued to increase investments across the businesses to drive efficient growth.

Acquisitions:

- Acquisition sales growth related to the March 2015 purchase of Ivera Medical Corp, a manufacturer of health care products that disinfect and protect devices used for access into a patient's bloodstream.

Operating income:

- Operating income margins decreased 1.0 percentage points year-on-year, primarily driven by incremental strategic investments.
- Acquisitions had a minimal impact on operating income margins.

Electronics and Energy Business (17.4% of consolidated sales):

	2017	2016	2015
Sales (millions)	\$ 5,501	\$ 4,926	\$ 5,398
Sales change analysis:			
Organic local-currency	11.6 %	(8.2)%	
Divestitures	(0.2)	—	
Translation	0.3	(0.5)	
Total sales change	11.7 %	(8.7)%	
Operating income (millions)	\$ 1,377	\$ 1,145	\$ 1,171
Percent change	20.3 %	(2.3)%	
Percent of sales	25.0 %	23.2 %	21.7 %

Year 2017 results:

Sales in Electronics and Energy totaled \$5.5 billion, up 11.7 percent in U.S. dollars. Organic local-currency sales increased 11.6 percent, divestitures reduced sales by 0.2 percent, and foreign currency translation increased sales by 0.3 percent.

Total sales within the electronics-related businesses were up 17 percent while energy-related businesses were up 2 percent.

On an organic local-currency sales basis:

- Sales increased 17 percent in 3M's electronics-related businesses, with increases in both display materials and systems and electronics materials solutions, as the businesses drove increased penetration on OEM platforms in addition to strengthened end-market demand in consumer electronics.
- Sales increased 1 percent in 3M's energy-related businesses, as sales growth in electrical markets was partially offset by declines in telecommunications.

Divestitures:

- In the fourth quarter of 2017, 3M sold the assets of its electrical marking/labeling business.
- In December 2016, 3M sold the assets of its cathode battery technology out-licensing business.
- In December 2017, 3M announced the sale of substantially all of its Communication Markets division, which is expected to close in 2018.

Operating income:

- Operating income margins increased 1.8 percentage points, as benefits from higher organic volume were partially offset by 2017 footprint and portfolio actions and year-on-year divestiture impacts. These actions resulted in a year-on-year operating income margin reduction of 2.2 percentage points.

Year 2016 results:

Sales totaled \$4.9 billion, down 8.7 percent in U.S. dollars. Organic local-currency sales declined 8.2 percent, and foreign currency translation reduced sales by 0.5 percent.

Total sales within the electronics-related and energy-related businesses decreased 10 percent and 6 percent, respectively.

On an organic local-currency sales basis:

- Sales decreased 10 percent in 3M's electronics-related businesses, with declines in both electronics materials solutions and display materials and systems. 3M was impacted by weak end-market demand across most consumer electronic applications.
- Sales decreased approximately 4 percent in 3M's energy-related businesses, with an increase in telecommunications more than offset by a decline in electrical markets. 3M exited its backsheet business in December 2015, which contributed to the reduction in energy-related sales.

Divestitures:

- In December 2016, 3M sold the assets of its cathode battery technology out-licensing business.

Operating income:

- Operating income decreased 2.3 percent to \$1.1 billion.
- Operating income margins were 23.2 percent compared to 21.7 percent in 2015, as divestiture gains and productivity benefits from past portfolio and restructuring actions benefited results.
- Expenses related to portfolio management actions in 2016, in addition to lower organic volume, reduced operating income margins.

Consumer Business (14.9% of consolidated sales):

	2017	2016	2015
Sales (millions)	\$ 4,731	\$ 4,578	\$ 4,518
Sales change analysis:			
Organic local-currency	2.7 %	1.9 %	
Translation	0.6	(0.6)	
Total sales change	3.3 %	1.3 %	
Operating income (millions)	\$ 1,004	\$ 1,054	\$ 1,074
Percent change	(4.8)%	(1.9)%	
Percent of sales	21.2 %	23.0 %	23.8 %

Year 2017 results:

Sales in Consumer totaled \$4.7 billion, up 3.3 percent in U.S. dollars. Organic local-currency sales increased 2.7 percent, while foreign currency translation increased sales by 0.6 percent.

On an organic local-currency sales basis:

- Sales grew in consumer health care, home improvement, and home care.
- The stationery and office supplies business declined due to channel inventory adjustments, primarily in the U.S. office retail and wholesale market.

Operating income:

- Operating income margins declined 1.8 percentage points year-on-year, primarily due to incremental strategic investments, which reduced margins by 1.8 percentage points.

Year 2016 results:

Consumer sales totaled \$4.6 billion, up 1.3 percent in U.S. dollars. Organic local-currency sales increased 1.9 percent, and foreign currency translation reduced sales by 0.6 percent.

On an organic local-currency sales basis:

- Sales growth was led by home improvement, in addition to consumer health care.

Operating income:

- Operating income was \$1.1 billion, down 1.9 percent from 2015.
- Operating income margins were 23.0 percent, benefiting from ongoing productivity efforts.

PERFORMANCE BY GEOGRAPHIC AREA

While 3M manages its businesses globally and believes its business segment results are the most relevant measure of performance, the Company also utilizes geographic area data as a secondary performance measure. Export sales are generally reported within the geographic area where the final sales to 3M customers are made. A portion of the products or components sold by 3M's operations to its customers are exported by these customers to different geographic areas. As customers move their operations from one geographic area to another, 3M's results will follow. Thus, net sales in a particular geographic area are not indicative of end-user consumption in that geographic area. Financial information related to 3M operations in various geographic areas is provided in Note 18.

Refer to the "Overview" section for a summary of net sales by geographic area and business segment.

Geographic Area Supplemental Information

<u>(Millions, except Employees)</u>	<u>Employees as of December 31,</u>			<u>Capital Spending</u>			<u>Property, Plant and Equipment - net as of December 31,</u>	
	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2017</u>	<u>2016</u>
United States	36,958	35,748	35,973	\$ 852	\$ 834	\$ 936	\$ 4,891	\$ 4,914
Asia Pacific	18,283	18,124	17,642	209	228	172	1,672	1,573
Europe, Middle East and Africa	20,869	20,203	20,563	256	294	249	1,798	1,512
Latin America and Canada	15,426	17,509	15,268	56	64	104	505	517
Total Company	91,536	91,584	89,446	\$ 1,373	\$ 1,420	\$ 1,461	\$ 8,866	\$ 8,516

Employment:

Employment decreased by 48 positions in 2017 and increased by 2,138 positions in 2016.

Capital Spending/Net Property, Plant and Equipment:

Investments in property, plant and equipment enable growth across many diverse markets, helping to meet product demand and increasing manufacturing efficiency. In 2017, 62% of 3M's capital spending was within the United States, followed by Europe, Middle East and Africa; Asia Pacific; and Latin America/Canada. 3M is increasing its investment in manufacturing and sourcing capability in order to more closely align its product capability with its sales in major geographic areas in order to best serve its customers throughout the world with proprietary, automated, efficient, safe and sustainable processes. Capital spending is discussed in more detail later in MD&A in the section entitled "Cash Flows from Investing Activities."

CRITICAL ACCOUNTING ESTIMATES

Information regarding significant accounting policies is included in Note 1 of the consolidated financial statements. As stated in Note 1, the preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and

liabilities. Management bases its estimates on historical experience and on various assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The Company believes its most critical accounting estimates relate to legal proceedings, the Company's pension and postretirement obligations, asset impairments and income taxes. Senior management has discussed the development, selection and disclosure of its critical accounting estimates with the Audit Committee of 3M's Board of Directors.

Legal Proceedings:

The categories of claims for which the Company has a probable and estimable liability, the amount of its liability accruals, and the estimates of its related insurance receivables are critical accounting estimates related to legal proceedings. Please refer to the section entitled "Process for Disclosure and Recording of Liabilities and Insurance Receivables Related to Legal Proceedings" (contained in "Legal Proceedings" in Note 15) for additional information about such estimates.

Pension and Postretirement Obligations:

3M has various company-sponsored retirement plans covering substantially all U.S. employees and many employees outside the United States. The primary U.S. defined-benefit pension plan was closed to new participants effective January 1, 2009. The Company accounts for its defined benefit pension and postretirement health care and life insurance benefit plans in accordance with Accounting Standard Codification (ASC) 715, *Compensation — Retirement Benefits*, in measuring plan assets and benefit obligations and in determining the amount of net periodic benefit cost. ASC 715 requires employers to recognize the underfunded or overfunded status of a defined benefit pension or postretirement plan as an asset or liability in its statement of financial position and recognize changes in the funded status in the year in which the changes occur through accumulated other comprehensive income, which is a component of stockholders' equity. While the company believes the valuation methods used to determine the fair value of plan assets are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date. See Note 12 for additional discussion of actuarial assumptions used in determining defined benefit pension and postretirement health care liabilities and expenses.

Pension benefits associated with these plans are generally based primarily on each participant's years of service, compensation, and age at retirement or termination. The benefit obligation represents the present value of the benefits that employees are entitled to in the future for services already rendered as of the measurement date. The Company measures the present value of these future benefits by projecting benefit payment cash flows for each future period and discounting these cash flows back to the December 31 measurement date, using the yields of a portfolio of high quality, fixed-income debt instruments that would produce cash flows sufficient in timing and amount to settle projected future benefits. Historically, the single aggregated discount rate used for each plan's benefit obligation was also used for the calculation of all net periodic benefit costs, including the measurement of the service and interest costs. Beginning in 2016, 3M changed the method used to estimate the service and interest cost components of the net periodic pension and other postretirement benefit costs. The new method measures service cost and interest cost separately using the spot yield curve approach applied to each corresponding obligation. Service costs are determined based on duration-specific spot rates applied to the service cost cash flows. The interest cost calculation is determined by applying duration-specific spot rates to the year-by-year projected benefit payments. The spot yield curve approach does not affect the measurement of the total benefit obligations as the change in service and interest costs offset in the actuarial gains and losses recorded in other comprehensive income. The Company changed to the new method to provide a more precise measure of service and interest costs by improving the correlation between the projected benefit cash flows and the discrete spot yield curve rates. The Company accounted for this change as a change in estimate prospectively beginning in the first quarter of 2016.

Using this methodology, the Company determined discount rates for its plans as follow:

	U.S. Qualified Pension	International Pension (weighted average)	U.S. Postretirement Medical
December 31, 2017 Liability:			
Benefit obligation	3.68 %	2.41 %	3.60 %
2018 Net Periodic Benefit Cost Components:			
Service cost	3.78 %	2.28 %	3.77 %
Interest cost	3.35 %	2.14 %	3.20 %

Another significant element in determining the Company's pension expense in accordance with ASC 715 is the expected return on plan assets, which is based on strategic asset allocation of the plan, long-term capital market return expectations, and expected performance from active investment management. For the primary U.S. qualified pension plan, the expected long-term rate of return on an annualized basis for 2018 is 7.25%, equal to 2017. Refer to Note 12 for information on how the 2017 rate was determined. Return on assets assumptions for international pension and other post-retirement benefit plans are calculated on a plan-by-plan basis using plan asset allocations and expected long-term rate of return assumptions. The weighted average expected return for the international pension plan is 5.02% for 2018, compared to 5.16% for 2017.

For the year ended December 31, 2017, the Company recognized consolidated defined benefit pre-tax pension and postretirement service cost expense of \$462 million and a benefit of \$128 million related to all non-service pension and postretirement net benefit costs (after settlements, curtailments, special termination benefits and other) for a total consolidated defined benefit pre-tax pension and postretirement expense of \$334 million, up from \$250 million in 2016.

In 2018, defined benefit pension and postretirement service cost expense is anticipated to total \$487 million while non-service pension and postretirement net benefit cost benefits (before settlements, curtailments, special termination benefits and other) is anticipated to be a benefit of approximately \$77 million, for a total consolidated defined benefit pre-tax pension and postretirement expense of \$410 million, an increase of \$76 million compared to 2017.

The table below summarizes the impact on 2018 pension expense for the U.S. and international pension plans of a 0.25 percentage point increase/decrease in the expected long-term rate of return on plan assets and discount rate assumptions used to measure plan liabilities and 2017 net periodic benefit cost. The table assumes all other factors are held constant, including the slope of the discount rate yield curves.

(Millions)	Increase (Decrease) in Net Periodic Benefit Cost			
	Discount Rate		Expected Return on Assets	
	-0.25%	+0.25%	-0.25%	+0.25%
U.S. pension plans	\$ 34	\$ (33)	\$ 38	\$ (38)
International pension plans	24	(23)	16	(16)

Asset Impairments:

As of December 31, 2017, net property, plant and equipment totaled \$8.9 billion and net identifiable intangible assets totaled \$2.9 billion. Management makes estimates and assumptions in preparing the consolidated financial statements for which actual results will emerge over long periods of time. This includes the recoverability of long-lived assets employed in the business, including assets of acquired businesses. These estimates and assumptions are closely monitored by management and periodically adjusted as circumstances warrant. For instance, expected asset lives may be shortened or an impairment recorded based on a change in the expected use of the asset or performance of the related asset group.

Of the \$2.9 billion in net identifiable intangible assets, \$0.6 billion relates to indefinite-lived tradenames, primarily Capital Safety, whose tradenames (\$520 million at acquisition date) have been in existence for over 55 years (refer to Note 2 for more detail). The primary valuation technique used in estimating the fair value of indefinite lived intangible assets (tradenames) is a discounted cash flow approach. Specifically, a relief of royalty rate is applied to estimated sales, with the resulting amounts then discounted using an appropriate market/technology discount rate. The relief of royalty

rate is the estimated royalty rate a market participant would pay to acquire the right to market/produce the product. If the resulting discounted cash flows are less than the book value of the indefinite lived intangible asset, impairment exists, and the asset value must be written down. Based on impairment testing in the third quarter of 2017, no impairment was indicated. The discounted cash flows related to the Capital Safety tradename exceeded its book value by more than 15 percent.

3M goodwill totaled approximately \$10.5 billion as of December 31, 2017. 3M's annual goodwill impairment testing is performed in the fourth quarter of each year. Impairment testing for goodwill is done at a reporting unit level, with all goodwill assigned to a reporting unit. Reporting units are one level below the business segment level, but are required to be combined when reporting units within the same segment have similar economic characteristics. At 3M, reporting units correspond to a division. 3M did not combine any of its reporting units for impairment testing.

An impairment loss would be recognized when the carrying amount of the reporting unit's net assets exceeds the estimated fair value of the reporting unit, and the loss would equal that difference. The estimated fair value of a reporting unit is determined using earnings for the reporting unit multiplied by a price/earnings ratio for comparable industry groups, or by using a discounted cash flow analysis. 3M typically uses the price/earnings ratio approach for stable and growing businesses that have a long history and track record of generating positive operating income and cash flows. 3M uses the discounted cash flow approach for start-up, loss position and declining businesses, in addition to using for businesses where the price/earnings ratio valuation method indicates additional review is warranted. 3M also uses discounted cash flow as an additional tool for businesses that may be growing at a slower rate than planned due to economic or other conditions.

As described in Note 17, effective in the first quarter of 2018, 3M made business segment reporting changes. For any product moves that resulted in reporting unit changes, the Company applied the relative fair value method to determine the impact on goodwill of the associated reporting units. During the first quarter of 2018, the Company completed its assessment of any potential goodwill impairment for reporting units impacted by this new structure and determined that no impairment existed. The discussion that follows relates to the separate fourth quarter 2017 annual impairment test and is in the context of the reporting unit structure that existed at that time.

As of October 1, 2017, 3M had 24 primary reporting units, with ten reporting units accounting for approximately 86 percent of the goodwill. These ten reporting units were comprised of the following divisions: Advanced Materials, Communication Markets, Display Materials and Systems, Health Information Systems, Industrial Adhesives and Tapes, Infection Prevention, Oral Care Solutions, Personal Safety, Separation and Purification, and Transportation Safety. The estimated fair value for all reporting units was in excess of carrying value by approximately 40 percent or more. 3M's market value at both December 31, 2017, and September 30, 2017, was significantly in excess of its shareholders' equity of approximately \$12 billion.

As discussed in Note 2, 3M announced the sale of substantially all of its Communication Markets division, which is expected to close in 2018, which will result in an associated goodwill reduction of approximately \$270 million upon sale.

In 2017, 3M determined fair values using either an industry price-earnings ratio approach or a discounted cash flows analysis. Where applicable, 3M used a weighted-average discounted cash flow analysis for certain divisions, using projected cash flows that were weighted based on different sales growth and terminal value assumptions, among other factors. The weighting was based on management's estimates of the likelihood of each scenario occurring.

3M is a highly integrated enterprise, where businesses share technology and leverage common fundamental strengths and capabilities, thus many of 3M's businesses could not easily be sold on a stand-alone basis. 3M's focus on research and development has resulted in a portion of 3M's value being comprised of internally developed businesses that have no goodwill associated with them. Based on the annual test in the fourth quarter of 2017, no goodwill impairment was indicated for any of the reporting units.

Factors which could result in future impairment charges include, among others, changes in worldwide economic conditions, changes in competitive conditions and customer preferences, and fluctuations in foreign currency exchange

rates. These risk factors are discussed in Item 1A, "Risk Factors," of this document. In addition, changes in the weighted average cost of capital could also impact impairment testing results. As indicated above, during the first quarter of 2018, the Company completed its assessment of any potential goodwill impairment for reporting units impacted by changes between reporting units and determined that no impairment existed. Long-lived assets with a definite life are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset (asset group) may not be recoverable. If future non-cash asset impairment charges are taken, 3M would expect that only a portion of the long-lived assets or goodwill would be impaired. 3M will continue to monitor its reporting units and asset groups in 2018 for any triggering events or other indicators of impairment.

Income Taxes:

The extent of 3M's operations involves dealing with uncertainties and judgments in the application of complex tax regulations in a multitude of jurisdictions. The final taxes paid are dependent upon many factors, including negotiations with taxing authorities in various jurisdictions and resolution of disputes arising from federal, state, and international tax audits. The Company recognizes potential liabilities and records tax liabilities for anticipated tax audit issues in the United States and other tax jurisdictions based on its estimate of whether, and the extent to which, additional taxes will be due. The Company follows guidance provided by ASC 740, *Income Taxes*, regarding uncertainty in income taxes, to record these liabilities (refer to Note 9 for additional information). The Company adjusts these reserves in light of changing facts and circumstances; however, due to the complexity of some of these uncertainties, the ultimate resolution may result in a payment that is materially different from the Company's current estimate of the tax liabilities. If the Company's estimate of tax liabilities proves to be less than the ultimate assessment, an additional charge to expense would result. If payment of these amounts ultimately proves to be less than the recorded amounts, the reversal of the liabilities would result in tax benefits being recognized in the period when the Company determines the liabilities are no longer necessary.

During the fourth quarter of 2017, 3M recorded a net tax expense related to the enactment of the Tax Cuts and Jobs Act (TCJA). The expense is primarily related to the TCJA's transition tax on previously unremitted earnings of non-U.S. subsidiaries and is net of remeasurement of 3M's deferred tax assets and liabilities considering the TCJA's newly enacted tax rates and certain other impacts. As discussed in Note 9, this expense is a provisional amount and is subject to adjustment during the measurement period of up to one year following the December 2017 enactment of the TCJA, as provided by recent SEC guidance.

NEW ACCOUNTING PRONOUNCEMENTS

Information regarding new accounting pronouncements is included in Note 1 to the Consolidated Financial Statements.

FINANCIAL CONDITION AND LIQUIDITY

The strength and stability of 3M's business model and strong free cash flow capability, together with proven capital markets access, positions the Company to be able to add further leverage to its capital structure. Investing in 3M's businesses to drive organic growth remains the first priority for capital deployment, including research and development, capital expenditures, and commercialization capability. Investment in organic growth will be supplemented by complementary acquisitions. 3M will also continue to return cash to shareholders through dividends and share repurchases. Sources for cash availability in the United States, such as ongoing cash flow from operations and access to capital markets, have historically been sufficient to fund dividend payments to shareholders, as well as funding U.S. acquisitions and other items as needed. The TCJA creates additional repatriation opportunities for 3M to access international cash positions on a continual and on-going basis and will help support U.S. capital deployments needs. For those international earnings still considered to be reinvested indefinitely, the Company currently has no plans or intentions to repatriate these funds for U.S. operations. See Note 9 for further information on earnings considered to be reinvested indefinitely.

3M's primary short-term liquidity needs are met through cash on hand and U.S. commercial paper issuances. 3M believes it will have continuous access to the commercial paper market. 3M's commercial paper program permits the Company to have a maximum of \$5 billion outstanding with a maximum maturity of 397 days from date of issuance. At December 31, 2017, there was approximately \$745 million in commercial paper issued and outstanding.

Total Debt:

The strength of 3M's capital structure and significant ongoing cash flows provide 3M proven access to capital markets. Additionally, the Company's maturity profile is staggered to help ensure refinancing needs in any given year are reasonable in proportion to the total portfolio. 3M currently has an AA- credit rating with a stable outlook from Standard & Poor's and has an A1 credit rating with a stable outlook from Moody's Investors Service.

The Company's total debt was \$2.3 billion higher at December 31, 2017 when compared to December 31, 2016. Increases in debt related to October 2017 debt issuances of \$2.0 billion, commercial paper of \$745 million outstanding at year end 2017, and the net impact of repayments and borrowings of international subsidiaries along with foreign currency effects. These are partially offset by June 2017 repayments of \$650 million aggregate principal amount of medium-term notes and the October 2017 \$305 million debt tender. For discussion of repayments of and proceeds from debt refer to the following "Cash Flows from Financing Activities" section.

Effective February 24, 2017, the Company updated its "well-known seasoned issuer" (WKSI) shelf registration statement, which registers an indeterminate amount of debt or equity securities for future issuance and sale. This replaced 3M's previous shelf registration dated May 16, 2014. In May 2016, in connection with the WKSI shelf, 3M entered into an amended and restated distribution agreement relating to the future issuance and sale (from time to time) of the Company's medium-term notes program (Series F), up to the aggregate principal amount of \$18 billion, which was an increase from the previous aggregate principal amount up to \$9 billion of the same Series.

As of December 31, 2017, the total amount of debt issued as part of the medium-term notes program (Series F), inclusive of debt issued in 2011, 2012, 2014, 2015, 2016, and the 2017 debt referenced above, is approximately \$13.1 billion (utilizing the foreign exchange rates applicable at the time of issuance for the Euro denominated debt). Information with respect to long-term debt issuances and maturities for the periods presented is included in Note 11.

In March 2016, 3M amended and restated its existing \$2.25 billion five-year revolving credit facility expiring in August 2019 to a \$3.75 billion five-year revolving credit facility expiring in March 2021. This credit agreement includes a provision under which 3M may request an increase of up to \$1.25 billion (at lenders' discretion), bringing the total facility up to \$5.0 billion. This revolving credit facility is undrawn at December 31, 2017. Under the \$3.75 billion credit agreement, the Company is required to maintain its EBITDA to Interest Ratio as of the end of each fiscal quarter at not less than 3.0 to 1. This is calculated (as defined in the agreement) as the ratio of consolidated total EBITDA for the four consecutive quarters then ended to total interest expense on all funded debt for the same period. At December 31, 2017, this ratio was approximately 29 to 1. Debt covenants do not restrict the payment of dividends. Apart from the committed

facilities, an additional \$288 million in stand-alone letters of credit and bank guarantees were also issued and outstanding at December 31, 2017. These instruments are utilized in connection with normal business activities.

Cash, Cash Equivalents and Marketable Securities:

At December 31, 2017, 3M had \$4.2 billion of cash, cash equivalents and marketable securities, of which approximately \$3.975 billion was held by the Company’s foreign subsidiaries and approximately \$180 million was held by the United States. These balances are invested in bank instruments and other high-quality fixed income securities. At December 31, 2016, cash, cash equivalents and marketable securities held by the Company’s foreign subsidiaries and by the United States totaled approximately \$2.35 billion and \$350 million, respectively. Specifics concerning marketable securities investments are provided in Note 10.

Net Debt (non-GAAP measure):

Net debt is not defined under U.S. GAAP and may not be computed the same as similarly titled measures used by other companies. The Company defines net debt as total debt less the total of cash, cash equivalents and current and long-term marketable securities. 3M believes net debt is meaningful to investors as 3M considers net debt and its components to be important indicators of liquidity and financial position. The following table provides net debt as of December 31, 2017 and 2016.

(Millions)	December 31,		2017 versus 2016
	2017	2016	
Total debt	\$ 13,949	\$ 11,650	\$ 2,299
Less: Cash, cash equivalents and marketable securities	4,156	2,695	1,461
Net debt (non-GAAP measure)	\$ 9,793	\$ 8,955	\$ 838

Refer to the preceding “Total Debt” and “Cash, Cash Equivalents and Marketable Securities” sections for additional details.

Balance Sheet:

3M’s strong balance sheet and liquidity provide the Company with significant flexibility to fund its numerous opportunities going forward. The Company will continue to invest in its operations to drive growth, including continual review of acquisition opportunities.

The Company uses working capital measures that place emphasis and focus on certain working capital assets. These measures include working capital, accounts receivable turns, and inventory turns.

Working Capital (non-GAAP measure):

(Millions)	December 31,		2017 versus 2016
	2017	2016	
Current assets	\$ 14,277	\$ 11,726	\$ 2,551
Less: Current liabilities	7,687	6,219	1,468
Working capital (non-GAAP measure)	\$ 6,590	\$ 5,507	\$ 1,083

Various assets and liabilities, including cash and short-term debt, can fluctuate significantly from month to month depending on short-term liquidity needs. Working capital is not defined under U.S. generally accepted accounting principles and may not be computed the same as similarly titled measures used by other companies. The Company defines working capital as current assets minus current liabilities. 3M believes working capital is meaningful to investors as a measure of operational efficiency and short-term financial health.

Working capital increased \$1.1 billion during 2017 when compared to December 31, 2016. Current asset balance changes increased working capital by \$2.6 billion, driven by increases in cash/cash equivalents and marketable securities, in addition to higher accounts receivable and inventories (discussed further below). Current liability balance changes decreased working capital by \$1.5 billion, largely due to increases in short-term borrowings, with commercial paper outstanding of \$745 million at December 31, 2017 compared to none outstanding at December 31, 2016.

Accounts Receivable and Inventory Turns (non-GAAP measures):

Accounts receivable and inventory turns are not defined under U.S. generally accepted accounting principles and may not be computed the same as similarly titled measures used by other companies. 3M defines accounts receivable turns as quarterly net sales multiplied by 4 divided by ending accounts receivable – net, and defines inventory turns as quarterly manufacturing cost multiplied by 4 divided by ending inventory. 3M believes accounts receivable turns is meaningful to investors as a measure of how efficiently the Company manages credit and collects from its customers. For inventory turns calculation purposes, manufacturing cost is defined as cost of sales less freight and engineering costs. 3M believes inventory turns is meaningful to investors as a measure of how quickly inventory is sold. Details of these calculations follow.

Accounts receivable turns (non-GAAP measure) (Millions, except turns)	December 31,		2017 versus 2016
	2017	2016	
Quarterly net sales	\$ 7,990	\$ 7,329	\$ 661
Ending accounts receivable - net	\$ 4,911	\$ 4,392	\$ 519
Accounts receivable turns	6.51	6.67	(0.16)

Inventory turns (non-GAAP measure) (Millions, except turns)	December 31,		2017 versus 2016
	2017	2016	
Quarterly cost of sales	\$ 4,094	\$ 3,736	\$ 358
Less: Freight and engineering	\$ 174	\$ 161	\$ 13
Manufacturing cost	\$ 3,920	\$ 3,575	\$ 345
Ending inventory	\$ 4,034	\$ 3,385	\$ 649
Inventory turns	3.89	4.22	(0.33)

Accounts receivable increased \$519 million year-on-year in 2017, primarily due to increased sales. In addition, foreign currency impacts increased 2017 accounts receivable by \$215 million and acquisitions, net of divestitures, increased accounts receivable by \$57 million. As a result, accounts receivable turns decreased 2 percent versus 2016.

Inventory increased \$649 million year-on-year in 2017. Foreign currency impacts increased 2017 inventory by \$210 million and acquisitions, net of divestitures, increased inventory by \$51 million. Higher fourth quarter sales contributed to a 10 percent increase in cost of sales, while inventory increased 19 percent, which combined contributed to an 8 percent decrease in inventory turns.

On a seasonal basis, both accounts receivable and inventory turns are historically higher at year-end, driven by lower year-end accounts receivable and inventory balances.

Return on Invested Capital (non-GAAP measure):

Return on Invested Capital (ROIC) is not defined under U.S. generally accepted accounting principles. Therefore, ROIC should not be considered a substitute for other measures prepared in accordance with U.S. GAAP and may not be comparable to similarly titled measures used by other companies. The Company defines ROIC as adjusted net income (net income including non-controlling interest plus after-tax interest expense) divided by average invested capital (equity plus debt). The Company believes ROIC is meaningful to investors as it focuses on shareholder value creation. The calculation is provided in the below table.

In 2017, ROIC of 21.3 percent was lower than both 2016 and 2015. This decrease related to the net impact of the enactment of the TCJA and increases in commercial paper borrowings in conjunction with the December 2017 U.S. defined benefit pension plan contribution, which combined reduced ROIC by 3 percentage points in 2017.

Years ended December 31
(Millions)

	2017	2016	2015
Return on Invested Capital (non-GAAP measure)			
Net income including non-controlling interest	\$ 4,869	\$ 5,058	\$ 4,841
Interest expense (after-tax) (1)	208	143	106
Adjusted net income (Return)	<u>\$ 5,077</u>	<u>\$ 5,201</u>	<u>\$ 4,947</u>
Average shareholders' equity (including non-controlling interest) (2)	\$ 11,627	\$ 11,316	\$ 12,484
Average short-term and long-term debt (3)	<u>12,156</u>	<u>11,725</u>	<u>9,266</u>
Average invested capital	<u>\$ 23,783</u>	<u>\$ 23,041</u>	<u>\$ 21,750</u>
Return on invested capital (non-GAAP measure)	21.3 %	22.6 %	22.7 %
(1) Effective income tax rate used for interest expense	35.5 %	28.3 %	29.1 %
(2) Calculation of average equity (includes non-controlling interest)			
Ending total equity as of:			
March 31	\$ 11,040	\$ 11,495	\$ 13,673
June 30	11,644	11,658	12,851
September 30	12,202	11,769	11,945
December 31	<u>11,622</u>	<u>10,343</u>	<u>11,468</u>
Average total equity	<u>\$ 11,627</u>	<u>\$ 11,316</u>	<u>\$ 12,484</u>
(3) Calculation of average debt			
Ending short-term and long-term debt as of:			
March 31	\$ 11,711	\$ 11,139	\$ 6,566
June 30	11,301	11,749	8,484
September 30	11,663	12,361	11,216
December 31	<u>13,949</u>	<u>11,650</u>	<u>10,797</u>
Average short-term and long-term debt	<u>\$ 12,156</u>	<u>\$ 11,725</u>	<u>\$ 9,266</u>

Cash Flows:

Cash flows from operating, investing and financing activities are provided in the tables that follow. Individual amounts in the Consolidated Statement of Cash Flows exclude the effects of acquisitions, divestitures and exchange rate impacts on cash and cash equivalents, which are presented separately in the cash flows. Thus, the amounts presented in the following operating, investing and financing activities tables reflect changes in balances from period to period adjusted for these effects.

Cash Flows from Operating Activities:

Years Ended December 31

(Millions)	2017	2016	2015
Net income including noncontrolling interest	\$ 4,869	\$ 5,058	\$ 4,841
Depreciation and amortization	1,544	1,474	1,435
Company pension and postretirement contributions	(967)	(383)	(267)
Company pension and postretirement expense	334	250	556
Stock-based compensation expense	324	298	276
Gain on sale of businesses	(586)	(111)	(47)
Income taxes (deferred and accrued income taxes)	1,074	108	(349)
Excess tax benefits from stock-based compensation	—	—	(154)
Accounts receivable	(245)	(313)	(58)
Inventories	(387)	57	3
Accounts payable	24	148	9
Other — net	256	76	175
Net cash provided by operating activities	\$ 6,240	\$ 6,662	\$ 6,420

Cash flows from operating activities can fluctuate significantly from period to period, as pension funding decisions, tax timing differences and other items can significantly impact cash flows.

In 2017, cash flows provided by operating activities decreased \$422 million compared to the same period last year. Factors that decreased operating cash flows were increases in pension contributions, plus year-on-year increases in working capital. In December 2017, 3M contributed \$600 million to its U.S. defined benefit pension plan, contributing to a year-on-year increase in pension and postretirement contributions of \$584 million. The combination of accounts receivable, inventories and accounts payable increased working capital by \$608 million in 2017, compared to working capital increases of \$108 million in 2016. In 2017, year-on-year decreases in income tax payments (net of refunds) increased operating cash flows by \$284 million. Additional discussion on working capital changes is provided earlier in the “Financial Condition and Liquidity” section. Information concerning defined benefit pension and postretirement contributions and expense is provided in Note 12, with additional discussion in the preceding Results of Operations section. Gain on sale of businesses in the preceding table reflects an adjustment for divestiture gains in 2017 (discussed in Note 2), as cash divestiture activity is presented as proceeds from sale of businesses within investing activities, not operating activities.

In 2016, cash flows provided by operating activities increased \$242 million compared to the same period in 2015, with this increase primarily due to lower year-on-year cash taxes and higher net income. These items were partially offset by higher Company pension contributions. The combination of accounts receivable, inventories and accounts payable increased working capital by \$108 million in 2016, compared to working capital increase of \$46 million in 2015. Gain on sale of businesses in the preceding table reflects an adjustment for divestiture gains in 2016 (discussed in Note 2), as cash divestiture activity is presented as proceeds from sale of businesses within investing activities, not operating activities.

Cash Flows from Investing Activities:

Years ended December 31

(Millions)	2017	2016	2015
Purchases of property, plant and equipment (PP&E)	\$ (1,373)	\$ (1,420)	\$ (1,461)
Proceeds from sale of PP&E and other assets	49	58	33
Acquisitions, net of cash acquired	(2,023)	(16)	(2,914)
Purchases and proceeds from maturities and sale of marketable securities and investments, net	(798)	(163)	1,300
Proceeds from sale of businesses, net of cash sold	1,065	142	123
Other — net	(6)	(4)	102
Net cash used in investing activities	\$ (3,086)	\$ (1,403)	\$ (2,817)

Investments in property, plant and equipment enable growth across many diverse markets, helping to meet product demand and increasing manufacturing efficiency. The Company expects 2018 capital spending to be approximately \$1.5 billion to \$1.8 billion as 3M continues to invest in its businesses.

3M invests in renewal and maintenance programs, which pertain to cost reduction, cycle time, maintaining and renewing current capacity, eliminating pollution, and compliance. Costs related to maintenance, ordinary repairs, and certain other items are expensed. 3M also invests in growth, which adds to capacity, driven by new products, both through expansion of current facilities and new facilities, plus research facilities. Finally, 3M also invests in other initiatives, such as information technology (IT) and corporate laboratory facilities.

Investments included continued expansion and sustainment of current and new facilities across many geographies, focusing on growth, productivity and capacity. Other investments include IT systems and infrastructure, particularly the ongoing multi-year phased implementation of an ERP system on a worldwide basis. Additional specific investments in 2015 included a new state-of-the-art, four story, 400,000 square foot research facility at 3M Center in St. Paul, Minnesota.

Refer to Note 2 for information on acquisitions and divestitures. The Company is actively considering additional acquisitions, investments and strategic alliances to strengthen its portfolio, and from time to time may also divest certain businesses.

Acquisitions, net of cash acquired, in 2017 primarily includes the purchase of Scott Safety. In 2015, this amount consisted mostly of the Capital Safety and Membrana acquisitions. Proceeds from sale of businesses in 2017 primarily relate to the divestiture of the assets of the prescription safety eyewear, identity management, tolling and automated license/number plate recognition and electronic monitoring businesses within the Safety and Graphics business segment. Proceeds from sale of businesses in 2016 related to the divestiture of the assets of the pressurized polyurethane foam adhesives business (formerly known as Polyfoam) within the Industrial business segment and the completion of the divestiture of the Library business within the Safety and Graphics business segment. In addition, in the fourth quarter of 2016, 3M sold the assets of its protective films business within the Industrial business segment and its cathode battery technology out-licensing business within the Electronics and Energy business segment.

Purchases of marketable securities and investments and proceeds from maturities and sale of marketable securities and investments are primarily attributable to asset-backed securities, certificates of deposit/time deposits, commercial paper, and other securities, which are classified as available-for-sale. Net proceeds from maturities and sale of marketable securities in 2015 were used to help fund the August 2015 acquisitions of Capital Safety and Membrana. Refer to Note 10 for more details about 3M's diversified marketable securities portfolio. Purchases of investments include additional survivor benefit insurance, plus cost method and equity investments.

Cash Flows from Financing Activities:

Years ended December 31 (Millions)	2017	2016	2015
Change in short-term debt — net	\$ 578	\$ (797)	\$ 860
Repayment of debt (maturities greater than 90 days)	(962)	(992)	(800)
Proceeds from debt (maturities greater than 90 days)	1,987	2,832	3,422
Total cash change in debt	\$ 1,603	\$ 1,043	\$ 3,482
Purchases of treasury stock	(2,068)	(3,753)	(5,238)
Proceeds from issuances of treasury stock pursuant to stock option and benefit plans	734	804	635
Dividends paid to stockholders	(2,803)	(2,678)	(2,561)
Excess tax benefits from stock-based compensation	—	—	154
Other — net	(121)	(42)	(120)
Net cash used in financing activities	\$ (2,655)	\$ (4,626)	\$ (3,648)

2017 Debt Activity:

The Company's total debt was \$2.3 billion higher at December 31, 2017 when compared to December 31, 2016. Increases in debt related to October 2017 debt issuances of \$2.0 billion, commercial paper of \$745 million outstanding at year end 2017, and the net impact of repayments and borrowings of international subsidiaries. These are partially offset by June 2017 repayments of \$650 million aggregate principal amount of medium-term notes and the October 2017 \$305 million debt tender. Net commercial paper issuances and repayments and borrowings by international subsidiaries are largely reflected in "Change in short-term debt – net" in the preceding table. Foreign exchange rate changes also impacted debt balances.

Proceeds from debt for 2017 primarily related to the October 2017 issuance of \$650 million aggregate principal amount of 5.5-year fixed rate medium-term notes due 2023 with a coupon rate of 2.25%, \$850 million aggregate principal amount of 10-year fixed rate medium-term notes due 2027 with a coupon rate of 2.875%, and \$500 million aggregate principal amount of 30-year fixed rate medium-term notes due 2047 with a coupon rate of 3.625%. Refer to Note 11 for more detail of these debt issuances.

In October 2017, via cash tender offers, 3M repurchased \$305 million aggregate principal amount of its outstanding notes. This included \$110 million of its \$330 million principal amount of 6.375% notes due 2028 and \$195 million of its \$750 million principal amount of 5.70% notes due 2037. The Company recorded an early debt extinguishment charge of \$96 million in the fourth quarter of 2017 within interest expense associated with the differential between the carrying value and the amount paid to acquire the tendered notes and related expenses.

2016 Debt Activity:

Total debt at December 31, 2016 increased \$853 million when compared to year-end 2015, with the increase primarily due to May 2016 debt issuances (approximately \$1.1 billion at issue date exchange rates) and September 2016 debt issuances of approximately \$1.75 billion. This increase was partially offset by the repayment of \$1 billion aggregate principal amount of medium-term notes due September 2016 along with the net impact of repayments and borrowings by international subsidiaries, primarily Japan and Korea (approximately \$0.8 million decrease), which is reflected in "Change in short-term debt—net" in the preceding table. Foreign exchange rate changes also impacted debt balances.

Proceeds from debt for 2016 primarily related to the May 2016 issuance of 500 million Euro aggregate principal amount of 5.75-year fixed rate medium-term notes due February 2022 with a coupon rate of 0.375% and 500 million Euro aggregate principal amount of 15-year fixed rate medium-term notes due 2031 with a coupon rate of 1.50%. In September 2016, 3M issued \$600 million aggregate principal amount of five-year fixed rate medium-term notes due 2021 with a coupon rate of 1.625%, \$650 million aggregate principal amount of 10-year fixed rate medium-term notes due 2026 with a coupon rate of 2.250%, and \$500 million aggregate principal amount of 30-year fixed rate medium-term

notes due 2046 with a coupon rate of 3.125%. All of these 2016 issuances were under the medium-term notes program (Series F).

2015 Debt Activity:

In 2015, the change in short-term debt primarily related to bank borrowings by international subsidiaries, primarily Japan and Korea. Repayment of debt primarily related to debt assumed (and paid off) as part of the Capital Safety acquisition. Proceeds from debt primarily related to the May 2015 issuance of 650 million Euros aggregate principal amount of five-year floating rate medium-term notes due 2020, 600 million Euros aggregate principal amount of eight-year fixed rate medium-term notes due 2023, and 500 million Euros aggregate principal amount of fifteen-year fixed rate medium-term notes due 2030, which in the aggregate total approximately \$1.9 billion at issue date exchange rates. In addition, August 2015 issuances included \$450 million aggregate principal amount of three-year fixed rate medium-term notes due 2018, \$500 million aggregate principal amount of five-year fixed rate medium-term notes due 2020, and \$550 million aggregate principal amount of 10-year fixed rate medium-term notes due 2025, which in aggregate total \$1.5 billion.

Repurchases of Common Stock:

Repurchases of common stock are made to support the Company's stock-based employee compensation plans and for other corporate purposes. In February 2016, 3M's Board of Directors authorized the repurchase of up to \$10 billion of 3M's outstanding common stock. This authorization has no pre-established end date. In 2017, the Company purchased \$2.1 billion of its own stock, compared to purchases of \$3.8 billion and \$5.2 billion in 2016 and 2015, respectively. The Company expects full-year 2018 gross share repurchases to be between \$2.0 billion to \$5.0 billion. For more information, refer to the table titled "Issuer Purchases of Equity Securities" in Part II, Item 5. The Company does not utilize derivative instruments linked to the Company's stock.

Dividends Paid to Shareholders:

Cash dividends paid to shareholders totaled \$2.803 billion (\$4.70 per share) in 2017, \$2.678 billion (\$4.44 per share) in 2016, and \$2.561 billion (\$4.10 per share) in 2015. 3M has paid dividends since 1916. In January 2018, 3M's Board of Directors declared a first-quarter 2018 dividend of \$1.36 per share, an increase of 16 percent. This is equivalent to an annual dividend of \$5.44 per share and marked the 60th consecutive year of dividend increases.

Other cash flows from financing activities may include various other items, such as changes in cash overdraft balances, and principal payments for capital leases. In addition, in 2017, this included a payment related to the \$96 million in interest expense associated with premiums and fees for the early retirement of debt. See Note 11 for additional details.

Free Cash Flow (non-GAAP measure):

Free cash flow and free cash flow conversion are not defined under U.S. generally accepted accounting principles (GAAP). Therefore, they should not be considered a substitute for income or cash flow data prepared in accordance with U.S. GAAP and may not be comparable to similarly titled measures used by other companies. The Company defines free cash flow as net cash provided by operating activities less purchases of property, plant and equipment. It should not be inferred that the entire free cash flow amount is available for discretionary expenditures. The Company defines free cash flow conversion as free cash flow divided by net income attributable to 3M. The Company believes free cash flow and free cash flow conversion are meaningful to investors as they are useful measures of performance and the Company uses these measures as an indication of the strength of the company and its ability to generate cash. The first quarter of each year is typically 3M's seasonal low for free cash flow and free cash flow conversion. Below find a recap of free cash flow and free cash flow conversion for 2017, 2016 and 2015.

In 2017, free cash flow conversion was impacted by enactment of the TCJA, along with an additional U.S. pension contribution of \$600 million that 3M made following the signing of tax reform. On a combined basis, these items benefited free cash flow conversion by 3 percentage points. Refer to the preceding “Cash Flows from Operating Activities” section for discussion of additional items that impacted operating cash flow. Refer to the preceding “Cash Flows from Investing Activities” section for discussion on capital spending for property, plant and equipment.

Years ended December 31

(Millions)	2017	2016	2015
Major GAAP Cash Flow Categories			
Net cash provided by operating activities	\$ 6,240	\$ 6,662	\$ 6,420
Net cash provided by (used in) investing activities	(3,086)	(1,403)	(2,817)
Net cash used in financing activities	(2,655)	(4,626)	(3,648)
Free Cash Flow (non-GAAP measure)			
Net cash provided by operating activities	\$ 6,240	\$ 6,662	\$ 6,420
Purchases of property, plant and equipment (PP&E)	(1,373)	(1,420)	(1,461)
Free cash flow	\$ 4,867	\$ 5,242	\$ 4,959
Net income attributable to 3M	\$ 4,858	\$ 5,050	\$ 4,833
Free cash flow conversion	100 %	104 %	103 %

Off-Balance Sheet Arrangements and Contractual Obligations:

As of December 31, 2017, the Company has not utilized special purpose entities to facilitate off-balance sheet financing arrangements. Refer to the section entitled “Warranties/Guarantees” in Note 15 for discussion of accrued product warranty liabilities and guarantees.

In addition to guarantees, 3M, in the normal course of business, periodically enters into agreements that require the Company to indemnify either major customers or suppliers for specific risks, such as claims for injury or property damage arising out of the use of 3M products or the negligence of 3M personnel, or claims alleging that 3M products infringe third-party patents or other intellectual property. While 3M’s maximum exposure under these indemnification provisions cannot be estimated, these indemnifications are not expected to have a material impact on the Company’s consolidated results of operations or financial condition.

A summary of the Company’s significant contractual obligations as of December 31, 2017, follows:

Contractual Obligations

(Millions)	Total	Payments due by year					
		2018	2019	2020	2021	2022	After 2022
Total debt (Note 11)	\$ 13,949	\$ 1,853	\$ 692	\$ 1,368	\$ 1,333	\$ 1,191	\$ 7,512
Interest on long-term debt	3,375	269	256	251	241	212	2,146
Operating leases (Note 15)	1,098	258	212	160	106	88	274
Capital leases (Note 15)	76	12	10	9	6	5	34
Tax Cuts and Jobs Act (TCJA) transition tax payments (Note 9)	745	122	59	59	59	111	335
Unconditional purchase obligations and other	1,561	1,032	211	150	99	56	13
Total contractual cash obligations	\$ 20,804	\$ 3,546	\$ 1,440	\$ 1,997	\$ 1,844	\$ 1,663	\$10,314

Long-term debt payments due in 2018, 2019, and 2020 include floating rate notes totaling \$54 million, \$71 million, and \$95 million, respectively, as a result of put provisions associated with these debt instruments.

During the fourth quarter of 2017, 3M recorded a net tax expense related to the enactment of the Tax Cuts and Jobs Act (TCJA). The expense is primarily related to the TCJA’s transition tax. The transition tax is payable over 8 years at the election of the taxpayer. As discussed in Note 9, this balance is a provisional amount and is subject to adjustment during

the measurement period of up to one year following the December 2017 enactment of the TCJA, as provided by recent SEC guidance.

Unconditional purchase obligations are defined as agreements to purchase goods or services that are enforceable and legally binding on the Company. Included in the unconditional purchase obligations category above are certain obligations related to take or pay contracts, capital commitments, service agreements and utilities. These estimates include both unconditional purchase obligations with terms in excess of one year and normal ongoing purchase obligations with terms of less than one year. Many of these commitments relate to take or pay contracts, in which 3M guarantees payment to ensure availability of products or services that are sold to customers. The Company expects to receive consideration (products or services) for these unconditional purchase obligations. Contractual capital commitments are included in the preceding table, but these commitments represent a small part of the Company's expected capital spending. The purchase obligation amounts do not represent the entire anticipated purchases in the future, but represent only those items for which the Company is contractually obligated. The majority of 3M's products and services are purchased as needed, with no unconditional commitment. For this reason, these amounts will not provide a reliable indicator of the Company's expected future cash outflows on a stand-alone basis.

Other obligations, included in the preceding table within the caption entitled "Unconditional purchase obligations and other," include the current portion of the liability for uncertain tax positions under ASC 740, which is expected to be paid out in cash in the next 12 months. The Company is not able to reasonably estimate the timing of the long-term payments, other than the transition tax prescribed under the Tax Cuts and Jobs Act (TCJA) which is separately included in the table above, or the amount by which the liability will increase or decrease over time; therefore, the long-term portion of the net tax liability of \$523 million is excluded from the preceding table. Refer to Note 9 for further details.

As discussed in Note 12, the Company does not have a required minimum cash pension contribution obligation for its U.S. plans in 2018 and Company contributions to its U.S. and international pension plans are expected to be largely discretionary in future years; therefore, amounts related to these plans are not included in the preceding table.

FINANCIAL INSTRUMENTS

The Company enters into foreign exchange forward contracts, options and swaps to hedge against the effect of exchange rate fluctuations on cash flows denominated in foreign currencies and certain intercompany financing transactions. The Company manages interest rate risks using a mix of fixed and floating 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 agreements and commodity price swaps.

Refer to Item 7A, "Quantitative and Qualitative Disclosures About Market Risk", for further discussion of foreign exchange rates risk, interest rates risk, commodity prices risk and value at risk analysis.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

In the context of Item 7A, 3M is exposed to market risk due to the risk of loss arising from adverse changes in foreign currency exchange rates, interest rates and commodity prices. Changes in those factors could cause fluctuations in earnings and cash flows. Senior management provides oversight for risk management and derivative activities, determines certain of the Company's financial risk policies and objectives, and provides guidelines for derivative instrument utilization. Senior management also establishes certain associated procedures relative to control and valuation, risk analysis, counterparty credit approval, and ongoing monitoring and reporting.

The Company is exposed to credit loss in the event of nonperformance by counterparties in interest rate swaps, currency swaps, commodity price swaps, and forward and option contracts. However, the Company's risk is limited to the fair value of the instruments. 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. The Company does not anticipate nonperformance by any of these counterparties.

Foreign Exchange Rates Risk:

Foreign currency exchange rates and fluctuations in those rates may affect the Company's net investment in foreign subsidiaries and may cause fluctuations in cash flows related to foreign denominated transactions. 3M is also exposed to the translation of foreign currency earnings to the U.S. dollar. The Company enters into foreign exchange forward and option contracts to hedge against the effect of exchange rate fluctuations on cash flows denominated in foreign currencies. These transactions are designated as cash flow hedges. 3M may dedesignate these cash flow hedge relationships in advance of the occurrence of the forecasted transaction. The maximum length of time over which 3M hedges its exposure to the variability in future cash flows of the forecasted transactions is 36 months. In addition, 3M enters into foreign currency forward contracts that are not designated in hedging relationships to offset, in part, the impacts of certain intercompany activities (primarily associated with intercompany licensing arrangements and intercompany financing transactions). As circumstances warrant, the Company also uses foreign currency forward contracts and foreign currency denominated debt as hedging instruments to hedge portions of the Company's net investments in foreign operations. The dollar equivalent gross notional amount of the Company's foreign exchange forward and option contracts designated as either cash flow hedges or net investment hedges was \$3.6 billion at December 31, 2017. The dollar equivalent gross notional amount of the Company's foreign exchange forward and option contracts not designated as hedging instruments was \$5.0 billion at December 31, 2017. In addition, as of December 31, 2017, the Company had 4.4 billion Euros in principal amount of foreign currency denominated debt designated as non-derivative hedging instruments in certain net investment hedges as discussed in Note 13 in the "Net Investment Hedges" section.

Interest Rates Risk:

The Company may be impacted by interest rate volatility with respect to existing debt and future debt issuances. 3M manages interest rate risk and expense using a mix of fixed and floating rate debt. In addition, the Company may enter into interest rate swaps that are designated and qualify as fair value hedges. 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 dollar equivalent (based on inception date foreign currency exchange rates) gross notional amount of the Company's interest rate swaps at December 31, 2017 was \$2.0 billion. Additional details about 3M's long-term debt can be found in Note 11, including references to information regarding derivatives and/or hedging instruments, further discussed in Note 13, associated with the Company's long-term debt.

Commodity Prices Risk:

The Company manages commodity price risks through negotiated supply contracts, price protection agreements and commodity price swaps. 3M used commodity price swaps as cash flow hedges of forecasted commodity transactions to manage price volatility, but discontinued this practice in the first quarter of 2015. The related mark-to-market gain or loss on qualifying hedges was included in other comprehensive income to the extent effective, and reclassified into cost of sales in the period during which the hedged transaction affected earnings. The Company may enter into other commodity price swaps to offset, in part, fluctuation and costs associated with the use of certain commodities and precious metals. These instruments are not designated in hedged relationships and the extent to which they were outstanding at December 31, 2017 was not material.

Value At Risk:

The value at risk analysis is performed annually to assess the Company's sensitivity to changes in currency rates, interest rates, and commodity prices. A Monte Carlo simulation technique was used to test the impact on after-tax earnings related to financial instruments (primarily debt), derivatives and underlying exposures outstanding at December 31, 2017. The model (third-party bank dataset) used a 95 percent confidence level over a 12-month time horizon. The exposure to changes in currency rates model used 9 currencies, interest rates related to two currencies, and commodity prices related to five commodities. This model does not purport to represent what actually will be experienced by the Company. This model does not include certain hedge transactions, because the Company believes their inclusion would

not materially impact the results. The following table summarizes the possible adverse and positive impacts to after-tax earnings related to these exposures.

(Millions)	Adverse impact on after-tax earnings		Positive impact on after-tax earnings	
	2017	2016	2017	2016
Foreign exchange rates	\$ (242)	\$ (245)	\$ 253	\$ 264
Interest rates	(15)	(13)	14	(2)
Commodity prices	(3)	(2)	3	1

In addition to the possible adverse and positive impacts discussed in the preceding table related to foreign exchange rates, recent historical information is as follows. 3M estimates that year-on-year currency effects, including hedging impacts, decreased pre-tax income by \$111 million and \$127 million in 2017 and 2016, respectively. This estimate includes the effect of translating profits from local currencies into U.S. dollars; the impact of currency fluctuations on the transfer of goods between 3M operations in the United States and abroad; and transaction gains and losses, including derivative instruments designed to reduce foreign currency exchange rate risks. 3M estimates that year-on-year derivative and other transaction gains and losses decreased pre-tax income by approximately \$152 million and \$69 million in 2017 and 2016, respectively.

An analysis of the global exposures related to purchased components and materials is performed at each year-end. A one percent price change would result in a pre-tax cost or savings of approximately \$75 million per year. The global energy exposure is such that a ten percent price change would result in a pre-tax cost or savings of approximately \$40 million per year. Global energy exposure includes energy costs used in 3M production and other facilities, primarily electricity and natural gas.

Item 8. Financial Statements and Supplementary Data.

Note: The information contained in this item has been updated for 3M's adoption of ASU No. 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, effective January 1, 2018 on a retrospective basis. Updates have been made to the following Consolidated Financial Statements and Notes to Consolidated Financial Statements:

- *Consolidated Statement of Income: Operating expenses (Cost of sales, Selling, general and administrative expenses, and Research, development and related expenses), Operating income and Other expense (income), net line items).*
- *Note 5, Supplemental Income Statement: Addition of Pension and postretirement net periodic benefit cost (benefit) line.*
- *Note 17, Business Segments: Operating income was revised for all periods presented as a result of non-service related pension and postretirement net periodic benefit costs being reported within other expense (income), net.*

In addition, certain business segment reporting changes were made effective in the first quarter of 2018 (Note 17). Updates have been made to the following Notes to Consolidated Financial Statements:

- *Note 3, Goodwill and Intangible Assets: For any product moves that resulted in reporting unit changes, the Company applied the relative fair value method to determine the impact on goodwill of the associated reporting units. No goodwill impairments resulted from any product moves that resulted in reporting unit changes.*
- *Note 17, Business Segments: Net sales, operating income, assets, depreciation and amortization, and capital expenditures have been revised to reflect the business segment reporting changes and other revisions for all periods presented.*

For significant developments since the filing of the 2017 Annual Report (e.g. new developments in "Commitments and Contingencies"), refer to subsequent 2018 Quarterly Reports on Form 10-Q.

Index to Financial Statements

A complete summary of Form 10-K content (updated by this Current Report on Form 8-K), including the index to financial statements, is found at the beginning of this document.

Management's Responsibility for Financial Reporting

Management is responsible for the integrity and objectivity of the financial information included in this report. The financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America. Where necessary, the financial statements reflect estimates based on management's judgment.

Management has established and maintains a system of internal control over financial reporting for the Company and its subsidiaries. This system and its established accounting procedures and related controls are designed to provide reasonable assurance that assets are safeguarded, that the books and records properly reflect all transactions, that policies and procedures are implemented by qualified personnel, and that published financial statements are properly prepared and fairly presented. The Company's system of internal control over financial reporting is supported by widely communicated written policies, including business conduct policies, which are designed to require all employees to maintain high ethical standards in the conduct of Company affairs. Internal auditors continually review the accounting and control system.

3M Company

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining an adequate system of internal control over financial reporting. Management conducted an assessment of the Company's internal control over financial reporting based on the framework established by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control — Integrated Framework (2013)*. Management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2017 excluded Scott Safety, which was acquired by the Company in October 2017 in a purchase business combination. Scott Safety is a wholly-owned subsidiary whose total assets and total net sales both represented less than 1 percent of the Company's consolidated financial statement amounts as of and for the year ended December 31, 2017. Companies are allowed to exclude acquisitions from their assessment of internal control over financial reporting during the first year of acquisition while integrating the acquired company under guidelines established by the Securities and Exchange Commission. Based on the assessment, management concluded that, as of December 31, 2017, the Company's internal control over financial reporting is effective.

The Company's internal control over financial reporting as of December 31, 2017 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2017.

3M Company

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of 3M Company

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of 3M Company and its subsidiaries as of December 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 31, 2017, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Scott Safety from its assessment of internal control over financial reporting as of December 31, 2017 because it was acquired by the Company in a purchase business combination during 2017. We have also excluded Scott Safety from our audit of internal control over financial reporting. Scott Safety is a wholly-owned subsidiary whose total assets and total net sales excluded from management's assessment and our audit of internal control over financial reporting both represent less than 1 percent of the related consolidated financial statement amounts as of and for the year ended December 31, 2017.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
Minneapolis, Minnesota

February 8, 2018, except for the change in the manner in which the Company presents and classifies certain pension and postretirement net periodic benefit costs in the statement of income discussed in Note 1 and Note 5 and in the composition of reportable segments discussed in Notes 3 and 17, as to which the date is May 8, 2018

We have served as the Company's auditor since 1975.

3M Company and Subsidiaries
Consolidated Statement of Income
Years ended December 31

(Millions, except per share amounts)	2017	2016	2015
Net sales	\$ 31,657	\$ 30,109	\$ 30,274
Operating expenses			
Cost of sales	16,055	15,118	15,351
Selling, general and administrative expenses	6,626	6,311	6,233
Research, development and related expenses	1,870	1,764	1,757
Gain on sale of businesses	(586)	(111)	(47)
Total operating expenses	23,965	23,082	23,294
Operating income	7,692	7,027	6,980
Other expense (income), net	144	(26)	157
Income before income taxes	7,548	7,053	6,823
Provision for income taxes	2,679	1,995	1,982
Net income including noncontrolling interest	\$ 4,869	\$ 5,058	\$ 4,841
Less: Net income attributable to noncontrolling interest	11	8	8
Net income attributable to 3M	\$ 4,858	\$ 5,050	\$ 4,833
Weighted average 3M common shares outstanding — basic	597.5	604.7	625.6
Earnings per share attributable to 3M common shareholders — basic	\$ 8.13	\$ 8.35	\$ 7.72
Weighted average 3M common shares outstanding — diluted	612.7	618.7	637.2
Earnings per share attributable to 3M common shareholders — diluted	\$ 7.93	\$ 8.16	\$ 7.58
Cash dividends paid per 3M common share	\$ 4.70	\$ 4.44	\$ 4.10

The accompanying Notes to Consolidated Financial Statements are an integral part of this statement.

3M Company and Subsidiaries
Consolidated Statement of Comprehensive Income
Years ended December 31

(Millions)	2017	2016	2015
Net income including noncontrolling interest	\$ 4,869	\$ 5,058	\$ 4,841
Other comprehensive income (loss), net of tax:			
Cumulative translation adjustment	373	(331)	(586)
Defined benefit pension and postretirement plans adjustment	52	(524)	489
Cash flow hedging instruments, unrealized gain (loss)	(203)	(33)	25
Total other comprehensive income (loss), net of tax	222	(888)	(72)
Comprehensive income (loss) including noncontrolling interest	5,091	4,170	4,769
Comprehensive (income) loss attributable to noncontrolling interest	(14)	(6)	(6)
Comprehensive income (loss) attributable to 3M	\$ 5,077	\$ 4,164	\$ 4,763

The accompanying Notes to Consolidated Financial Statements are an integral part of this statement.

3M Company and Subsidiaries
Consolidated Balance Sheet
At December 31

(Dollars in millions, except per share amount)	December 31, 2017	December 31, 2016
Assets		
Current assets		
Cash and cash equivalents	\$ 3,053	\$ 2,398
Marketable securities — current	1,076	280
Accounts receivable — net of allowances of \$103 and \$88	4,911	4,392
Inventories		
Finished goods	1,915	1,629
Work in process	1,218	1,039
Raw materials and supplies	901	717
Total inventories	4,034	3,385
Prepays	937	821
Other current assets	266	450
Total current assets	14,277	11,726
Property, plant and equipment	24,914	23,499
Less: Accumulated depreciation	(16,048)	(14,983)
Property, plant and equipment — net	8,866	8,516
Goodwill	10,513	9,166
Intangible assets — net	2,936	2,320
Other assets	1,395	1,178
Total assets	\$ 37,987	\$ 32,906
Liabilities		
Current liabilities		
Short-term borrowings and current portion of long-term debt	\$ 1,853	\$ 972
Accounts payable	1,945	1,798
Accrued payroll	870	678
Accrued income taxes	310	299
Other current liabilities	2,709	2,472
Total current liabilities	7,687	6,219
Long-term debt	12,096	10,678
Pension and postretirement benefits	3,620	4,018
Other liabilities	2,962	1,648
Total liabilities	\$ 26,365	\$ 22,563
Commitments and contingencies (Note 15)		
Equity		
3M Company shareholders' equity:		
Common stock par value, \$.01 par value	\$ 9	\$ 9
Shares outstanding - 2017: 594,884,237		
Shares outstanding - 2016: 596,726,278		
Additional paid-in capital	5,352	5,061
Retained earnings	39,115	37,907
Treasury stock	(25,887)	(25,434)
Accumulated other comprehensive income (loss)	(7,026)	(7,245)
Total 3M Company shareholders' equity	11,563	10,298
Noncontrolling interest	59	45
Total equity	\$ 11,622	\$ 10,343
Total liabilities and equity	\$ 37,987	\$ 32,906

The accompanying Notes to Consolidated Financial Statements are an integral part of this statement.

3M Company and Subsidiaries
Consolidated Statement of Changes in Equity
Years Ended December 31

(Dollars in millions, except per share amounts)	3M Company Shareholders					
	Total	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interest
Balance at December 31, 2014	\$ 12,863	\$ 4,388	\$ 34,038	\$ (19,307)	\$ (6,289)	\$ 33
Net income	4,841		4,833			8
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	(586)				(584)	(2)
Defined benefit pension and post-retirement plans adjustment	489				489	—
Cash flow hedging instruments - unrealized gain (loss)	25				25	—
Total other comprehensive income (loss), net of tax	(72)					
Dividends declared (\$3.075 per share, Note 7)	(1,913)		(1,913)			
Stock-based compensation, net of tax impacts	412	412				
Reacquired stock	(5,304)			(5,304)		
Issuances pursuant to stock option and benefit plans	641		(662)	1,303		
Balance at December 31, 2015	\$ 11,468	\$ 4,800	\$ 36,296	\$ (23,308)	\$ (6,359)	\$ 39
Net income	5,058		5,050			8
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	(331)				(329)	(2)
Defined benefit pension and post-retirement plans adjustment	(524)				(524)	—
Cash flow hedging instruments - unrealized gain (loss)	(33)				(33)	—
Total other comprehensive income (loss), net of tax	(888)					
Dividends declared (\$4.44 per share, Note 7)	(2,678)		(2,678)			
Stock-based compensation	270	270				
Reacquired stock	(3,699)			(3,699)		
Issuances pursuant to stock option and benefit plans	812		(761)	1,573		
Balance at December 31, 2016	\$ 10,343	\$ 5,070	\$ 37,907	\$ (25,434)	\$ (7,245)	\$ 45
Net income	4,869		4,858			11
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	373				370	3
Defined benefit pension and post-retirement plans adjustment	52				52	—
Cash flow hedging instruments - unrealized gain (loss)	(203)				(203)	—
Total other comprehensive income (loss), net of tax	222					
Dividends declared (\$4.70 per share, Note 7)	(2,803)		(2,803)			
Stock-based compensation	291	291				
Reacquired stock	(2,044)			(2,044)		
Issuances pursuant to stock option and benefit plans	744		(847)	1,591		
Balance at December 31, 2017	\$ 11,622	\$ 5,361	\$ 39,115	\$ (25,887)	\$ (7,026)	\$ 59
Supplemental share information			2017	2016	2015	
Treasury stock						
Beginning balance			347,306,778	334,702,932	308,898,462	
Reacquired stock			10,209,963	22,602,748	34,072,584	
Issuances pursuant to stock options and benefit plans			(8,367,922)	(9,998,902)	(8,268,114)	
Ending balance			349,148,819	347,306,778	334,702,932	

The accompanying Notes to Consolidated Financial Statements are an integral part of this statement.

3M Company and Subsidiaries
Consolidated Statement of Cash Flows
Years ended December 31

(Millions)	2017	2016	2015
Cash Flows from Operating Activities			
Net income including noncontrolling interest	\$ 4,869	\$ 5,058	\$ 4,841
Adjustments to reconcile net income including noncontrolling interest to net cash provided by operating activities			
Depreciation and amortization	1,544	1,474	1,435
Company pension and postretirement contributions	(967)	(383)	(267)
Company pension and postretirement expense	334	250	556
Stock-based compensation expense	324	298	276
Gain on sale of businesses	(586)	(111)	(47)
Deferred income taxes	107	7	395
Excess tax benefits from stock-based compensation	—	—	(154)
Changes in assets and liabilities			
Accounts receivable	(245)	(313)	(58)
Inventories	(387)	57	3
Accounts payable	24	148	9
Accrued income taxes (current and long-term)	967	101	(744)
Other — net	256	76	175
Net cash provided by operating activities	<u>6,240</u>	<u>6,662</u>	<u>6,420</u>
Cash Flows from Investing Activities			
Purchases of property, plant and equipment (PP&E)	(1,373)	(1,420)	(1,461)
Proceeds from sale of PP&E and other assets	49	58	33
Acquisitions, net of cash acquired	(2,023)	(16)	(2,914)
Purchases of marketable securities and investments	(2,152)	(1,410)	(652)
Proceeds from maturities and sale of marketable securities and investments	1,354	1,247	1,952
Proceeds from sale of businesses, net of cash sold	1,065	142	123
Other — net	(6)	(4)	102
Net cash used in investing activities	<u>(3,086)</u>	<u>(1,403)</u>	<u>(2,817)</u>
Cash Flows from Financing Activities			
Change in short-term debt — net	578	(797)	860
Repayment of debt (maturities greater than 90 days)	(962)	(992)	(800)
Proceeds from debt (maturities greater than 90 days)	1,987	2,832	3,422
Purchases of treasury stock	(2,068)	(3,753)	(5,238)
Proceeds from issuance of treasury stock pursuant to stock option and benefit plans	734	804	635
Dividends paid to shareholders	(2,803)	(2,678)	(2,561)
Excess tax benefits from stock-based compensation	—	—	154
Other — net	(121)	(42)	(120)
Net cash used in financing activities	<u>(2,655)</u>	<u>(4,626)</u>	<u>(3,648)</u>
Effect of exchange rate changes on cash and cash equivalents	<u>156</u>	<u>(33)</u>	<u>(54)</u>
Net increase (decrease) in cash and cash equivalents	655	600	(99)
Cash and cash equivalents at beginning of year	2,398	1,798	1,897
Cash and cash equivalents at end of period	<u>\$ 3,053</u>	<u>\$ 2,398</u>	<u>\$ 1,798</u>

The accompanying Notes to Consolidated Financial Statements are an integral part of this statement.

Notes to Consolidated Financial Statements

NOTE 1. Significant Accounting Policies

Consolidation: 3M is a diversified global manufacturer, technology innovator and marketer of a wide variety of products. All subsidiaries are consolidated. All intercompany transactions are eliminated. As used herein, the term “3M” or “Company” refers to 3M Company and subsidiaries unless the context indicates otherwise.

Basis of presentation: Certain amounts in the prior years’ consolidated financial statements have been reclassified to conform to the current year presentation.

In addition, as described in the “New Accounting Pronouncements” section, the Company adopted Accounting Standards Update (ASU) No. 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*, effective January 1, 2018 on a retrospective basis. This ASU changed how 3M presents net periodic benefit cost within its consolidated statement of income as indicated in the tables that follow. The financial information presented herein reflects these impacts for all periods presented.

Year ended December 31, 2017 (Millions)	Previously Reported	Reflecting ASU Adoption	Change
Net Sales	\$ 31,657	\$ 31,657	\$ —
Operating expenses			
Cost of sales	16,001	16,055	54
Selling, general and administrative expenses	6,572	6,626	54
Research, development and related expenses	1,850	1,870	20
Gain on sale of businesses	(586)	(586)	—
Total operating expenses	23,837	23,965	128
Operating income	\$ 7,820	\$ 7,692	\$ (128)
Other expense (income), net	\$ 272	\$ 144	\$ (128)
Income before income taxes	\$ 7,548	\$ 7,548	\$ —
Year ended December 31, 2016 (Millions)	Previously Reported	Reflecting ASU Adoption	Change
Net Sales	\$ 30,109	\$ 30,109	\$ —
Operating expenses			
Cost of sales	15,040	15,118	78
Selling, general and administrative expenses	6,222	6,311	89
Research, development and related expenses	1,735	1,764	29
Gain on sale of businesses	(111)	(111)	—
Total operating expenses	22,886	23,082	196
Operating income	\$ 7,223	\$ 7,027	\$ (196)
Other expense (income), net	\$ 170	\$ (26)	\$ (196)
Income before income taxes	\$ 7,053	\$ 7,053	\$ —

Year ended December 31, 2015 (Millions)	Previously Reported	Reflecting ASU Adoption	Change
Net Sales	\$ 30,274	\$ 30,274	\$ —
Operating expenses			
Cost of sales	15,383	15,351	(32)
Selling, general and administrative expenses	6,229	6,233	4
Research, development and related expenses	1,763	1,757	(6)
Gain on sale of businesses	(47)	(47)	—
Total operating expenses	23,328	23,294	(34)
Operating income	\$ 6,946	\$ 6,980	\$ 34
Other expense (income), net	\$ 123	\$ 157	\$ 34
Income before income taxes	\$ 6,823	\$ 6,823	\$ —

Foreign currency translation: Local currencies generally are considered the functional currencies outside the United States. Assets and liabilities for operations in local-currency environments are translated at month-end exchange rates of the period reported. Income and expense items are translated at month-end exchange rates of each applicable month. Cumulative translation adjustments are recorded as a component of accumulated other comprehensive income (loss) in shareholders' equity.

3M has a subsidiary in Venezuela, the financial statements of which are remeasured under Accounting Standards Codification (ASC) 830, *Foreign Currency Matters*, as if its functional currency were that of its parent because Venezuela's economic environment is considered highly inflationary. The operating income of this subsidiary is immaterial as a percent of 3M's consolidated operating income for 2017. The Venezuelan government sets official rates of exchange and conditions precedent to purchase foreign currency at these rates with local currency. The government also operates various expanded secondary currency exchange mechanisms that have been eliminated and replaced from time to time. Such rates and conditions have been and continue to be subject to change. For the periods presented, the financial statements of 3M's Venezuelan subsidiary were remeasured utilizing the rate associated with the secondary auction mechanism, Tipo de Cambio Complementario, which was redesigned by the Venezuelan government in June 2017 (DICOM2), or its predecessor. During the same periods, the Venezuelan government's official exchange was Tipo de Cambio Protegido (DIPRO), or its predecessor. 3M's uses of these rates were based upon evaluation of a number of factors including, but not limited to, the exchange rate the Company's Venezuelan subsidiary may legally use to convert currency, settle transactions or pay dividends; the probability of accessing and obtaining currency by use of a particular rate or mechanism; and the Company's intent and ability to use a particular exchange mechanism. The Company continues to monitor these circumstances. Changes in applicable exchange rates or exchange mechanisms may continue in the future. These changes could impact the rate of exchange applicable to remeasure the Company's net monetary assets (liabilities) denominated in Venezuelan Bolivars (VEF). As of December 31, 2017, the Company had a balance of net monetary assets denominated in VEF of less than 10 billion VEF and the DIPRO and DICOM2 exchange rates were approximately 10 VEF and 3,300 VEF per U.S. dollar, respectively.

A need to deconsolidate the Company's Venezuelan subsidiary's operations may result from a lack of exchangeability of VEF-denominated cash coupled with an acute degradation in the ability to make key operational decisions due to government regulations in Venezuela. 3M monitors factors such as its ability to access various exchange mechanisms; the impact of government regulations on the Company's ability to manage its Venezuelan subsidiary's capital structure, purchasing, product pricing, and labor relations; and the current political and economic situation within Venezuela. Based upon a review of factors as of December 31, 2017, the Company continues to consolidate its Venezuelan subsidiary. As of December 31, 2017, the balance of accumulated other comprehensive loss associated with this subsidiary was approximately \$145 million and the amount of intercompany receivables due from this subsidiary and its total equity balance were not significant.

Use of estimates: The preparation of financial statements in conformity with U.S. 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 acquired.

Marketable securities: Marketable securities include available-for-sale debt securities and are recorded at fair value. Cost of securities sold use the first in, first out (FIFO) method. The classification of marketable securities as current or non-current is based on the availability for use in current operations. 3M reviews impairments associated with its marketable securities in accordance with the measurement guidance provided by ASC 320, *Investments-Debt and Equity Securities*, when determining the classification of the impairment as “temporary” or “other-than-temporary”. A temporary impairment charge results in an unrealized loss being recorded in accumulated other comprehensive income as a component of shareholders’ equity. Such an unrealized loss does not reduce net income for the applicable accounting period because the loss is not viewed as other-than-temporary. The factors evaluated to differentiate between temporary and other-than-temporary include the projected future cash flows, credit ratings actions, and assessment of the credit quality of the underlying collateral, as well as other factors. Amounts are reclassified out of accumulated other comprehensive income and into earnings upon sale or “other-than-temporary” impairment.

Investments: Investments primarily include equity method, cost method, and available-for-sale equity investments. Available-for-sale investments are recorded at fair value at each reporting date and subject to ASC 320, as described above.

Other assets: Other assets include deferred income taxes, product and other insurance receivables, the cash surrender value of life insurance policies, and other long-term assets. Investments in life insurance are reported at the amount that could be realized under contract at the balance sheet date, with any changes in cash surrender value or contract value during the period accounted for as an adjustment of premiums paid. Cash outflows and inflows associated with life insurance activity are included in “Purchases of marketable securities and investments” and “Proceeds from maturities and sale of marketable securities and investments,” respectively.

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

Property, plant and equipment: Property, plant and equipment, including capitalized interest and internal direct engineering costs, are recorded at cost. Depreciation of property, plant and equipment generally is computed using the straight-line method based on the estimated useful lives of the assets. The estimated useful lives of buildings and improvements primarily range from ten to forty years, with the majority in the range of twenty to forty years. The estimated useful lives of machinery and equipment primarily range from three to fifteen years, with the majority in the range of five to ten years. Fully depreciated assets other than capitalized internally developed software are retained in property, plant and equipment and accumulated depreciation accounts until disposal. Upon disposal, assets and related accumulated depreciation are removed from the accounts and the net amount, less proceeds from disposal, is charged or credited to operations. Property, plant and equipment amounts are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset (asset group) may not be recoverable. An impairment loss would be recognized when the carrying amount of an asset exceeds the estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition. The amount of the impairment loss recorded is calculated by the excess of the asset’s carrying value over its fair value. Fair value is generally determined using a discounted cash flow analysis.

Conditional asset retirement obligations: A liability is initially recorded at fair value for an asset retirement obligation associated with the retirement of tangible long-lived assets in the period in which it is incurred if a reasonable estimate of fair value can be made. Conditional asset retirement obligations exist for certain long-term assets of the Company. The obligation is initially measured at fair value using expected present value techniques. Over time the liabilities are accreted for the change in their present value and the initial capitalized costs are depreciated over the remaining useful lives of the related assets. The asset retirement obligation liability was \$106 million and \$111 million at December 31, 2017 and 2016, respectively.

Goodwill: Goodwill is the excess of cost of an acquired entity over the amounts assigned to assets acquired and liabilities assumed in a business combination. Goodwill is not amortized. Goodwill is tested for impairment annually in the fourth quarter of each year, and is tested for impairment between annual tests if an event occurs or circumstances change that would indicate the carrying amount may be impaired. Impairment testing for goodwill is done at a reporting unit level, with all goodwill assigned to a reporting unit. Reporting units are one level below the business segment level, but are required to be combined when reporting units within the same segment have similar economic characteristics. 3M did not combine any of its reporting units for impairment testing. The impairment loss is measured as the amount by which the carrying value of the reporting unit's net assets exceeds its estimated fair value. The estimated fair value of a reporting unit is determined using earnings for the reporting unit multiplied by a price/earnings ratio for comparable industry groups, or by using a discounted cash flow analysis. Companies have the option to first assess qualitative factors to determine whether the fair value of a reporting unit is not "more likely than not" less than its carrying amount, which is commonly referred to as "Step 0". 3M has chosen not to apply Step 0 for its annual goodwill assessments.

Intangible assets: Intangible asset types include customer related, patents, other technology-based, tradenames and other intangible assets acquired from an independent party. Intangible assets with a definite life are amortized over a period ranging from one to twenty years on a systematic and rational basis (generally straight line) that is representative of the asset's use. The estimated useful lives vary by category, with customer related largely between eight to seventeen years, patents largely between five to thirteen years, other technology-based largely between two to fifteen years, definite lived tradenames largely between three and twenty years, and other intangibles largely between two to ten years. Costs related to internally developed intangible assets, such as patents, are expensed as incurred, primarily in "Research, development and related expenses."

Intangible assets with a definite life are tested for impairment whenever events or circumstances indicate that the carrying amount of an asset (asset group) may not be recoverable. An impairment loss is recognized when the carrying amount of an asset exceeds the estimated undiscounted cash flows used in determining the fair value of the asset. The amount of the impairment loss recorded is calculated by the excess of the asset's carrying value over its fair value. Fair value is generally determined using a discounted cash flow analysis.

Intangible assets with an indefinite life, namely certain tradenames, are not amortized. Indefinite-lived intangible assets are tested for impairment annually, and are tested for impairment between annual tests if an event occurs or circumstances change that would indicate that the carrying amount may be impaired. An impairment loss generally would be recognized when the fair value is less than the carrying value of the indefinite-lived intangible asset.

Restructuring actions: Restructuring actions generally include significant actions involving employee-related severance charges, contract termination costs, and impairment or accelerated depreciation/amortization of assets associated with such actions. Employee-related severance charges are largely based upon distributed employment policies and substantive severance plans. These charges are reflected in the quarter when the actions are probable and the amounts are estimable, which typically is when management approves the associated actions. Severance amounts for which affected employees were required to render service in order to receive benefits at their termination dates were measured at the date such benefits were communicated to the applicable employees and recognized as expense over the employees' remaining service periods. Contract termination and other charges primarily reflect costs to terminate a contract before the end of its term (measured at fair value at the time the Company provided notice to the counterparty) or costs that will continue to be incurred under the contract for its remaining term without economic benefit to the Company. Asset impairment charges related to intangible assets and property, plant and equipment reflect the excess of the assets' carrying values over their fair values.

Revenue (sales) recognition: The Company sells a wide range of products to a diversified base of customers around the world and has no material concentration of credit risk. Revenue is recognized when the risks and rewards of ownership have substantively transferred to customers. This condition normally is met when the product has been delivered or upon performance of services. The Company records estimated reductions to revenue or records expense for customer and distributor incentives, primarily comprised of rebates and free goods, at the time of the initial sale. These sales incentives are accounted for in accordance with ASC 605, *Revenue Recognition*. The estimated reductions of revenue for rebates are based on the sales terms, historical experience, trend analysis and projected market conditions in the various markets

served. Since the Company serves numerous markets, the rebate programs offered vary across businesses, but the most common incentive relates to amounts paid or credited to customers for achieving defined volume levels or growth objectives. Free goods are accounted for as an expense and recorded in cost of sales. Sales, use, value-added and other excise taxes are not recognized in revenue.

The vast majority of 3M's sales agreements are for standard products and services with customer acceptance occurring upon delivery of the product or performance of the service. However, to a limited extent 3M also enters into agreements that involve multiple elements (such as equipment, installation and service), software, or non-standard terms and conditions.

For non-software multiple-element arrangements, the Company recognizes revenue for delivered elements when they have stand-alone value to the customer, they have been accepted by the customer, and for which there are only customary refund or return rights. Arrangement consideration is allocated to the deliverables by use of the relative selling price method. The selling price used for each deliverable is based on vendor-specific objective evidence (VSOE) if available, third-party evidence (TPE) if VSOE is not available, or estimated selling price if neither VSOE nor TPE is available. Estimated selling price is determined in a manner consistent with that used to establish the price to sell the deliverable on a standalone basis. In addition to the preceding conditions, equipment revenue is not recorded until the installation has been completed if equipment acceptance is dependent upon installation or if installation is essential to the functionality of the equipment. Installation revenues are not recorded until installation has been completed.

For arrangements (or portions of arrangements) falling within software revenue recognition standards and that do not involve significant production, modification, or customization, revenue for each software or software-related element is recognized when the Company has VSOE of the fair value of all of the undelivered elements and applicable criteria have been met for the delivered elements. When the arrangements involve significant production, modification or customization, long-term construction-type accounting involving proportional performance is employed.

For prepaid service contracts, sales revenue is recognized on a straight-line basis over the term of the contract, unless historical evidence indicates the costs are incurred on other than a straight-line basis. License fee revenue is recognized as earned, and no revenue is recognized until the inception of the license term.

On occasion, agreements will contain milestones, or 3M will recognize revenue based on proportional performance. For these agreements, and depending on the specifics, 3M may recognize revenue upon completion of a substantive milestone, or in proportion to costs incurred to date compared with the estimate of total costs to be incurred.

Accounts receivable and allowances: Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The Company maintains allowances for bad debts, cash discounts, product returns and various other items. The allowance for doubtful accounts and product returns is based on the best estimate of the amount of probable credit losses in existing accounts receivable and anticipated sales returns. The Company determines the allowances based on historical write-off experience by industry and regional economic data and historical sales returns. The Company reviews the allowance for doubtful accounts monthly. The Company does not have any significant off-balance-sheet credit exposure related to its customers.

Advertising and merchandising: These costs are charged to operations in the period incurred, and totaled \$411 million in 2017, \$385 million in 2016 and \$368 million in 2015.

Research, development and related expenses: These costs are charged to operations in the period incurred and are shown on a separate line of the Consolidated Statement of Income. Research, development and related expenses totaled \$1.870 billion in 2017, \$1.764 billion in 2016 and \$1.757 billion in 2015. Research and development expenses, covering basic scientific research and the application of scientific advances in the development of new and improved products and their uses, totaled \$1.352 billion in 2017, \$1.248 billion in 2016 and \$1.220 billion in 2015. Related expenses primarily include technical support; internally developed patent costs, which include costs and fees incurred to prepare, file, secure and maintain patents; amortization of externally acquired patents and externally acquired in-process research and development; and gains/losses associated with certain corporate approved investments in R&D-related ventures, such as equity method effects and impairments.

Internal-use software: The Company capitalizes direct costs of services used in the development of, and external software acquired for use as, internal-use software. Amounts capitalized are amortized over a period of three to seven years, generally on a straight-line basis, unless another systematic and rational basis is more representative of the software's use. Amounts are reported as a component of either machinery and equipment or capital leases within property, plant and equipment. Fully depreciated internal-use software assets are removed from property, plant and equipment and accumulated depreciation accounts.

Environmental: Environmental expenditures relating to existing conditions caused by past operations that do not contribute to current or future revenues are expensed. Reserves for liabilities related to anticipated remediation costs are recorded on an undiscounted basis when they are probable and reasonably estimable, generally no later than the completion of feasibility studies, the Company's commitment to a plan of action, or approval by regulatory agencies. Environmental expenditures for capital projects that contribute to current or future operations generally are capitalized and depreciated over their estimated useful lives.

Income taxes: The provision for income taxes is determined using the asset and liability approach. Under this approach, deferred income taxes represent the expected future tax consequences of temporary differences between the carrying amounts and tax basis of assets and liabilities. The Company records a valuation allowance to reduce its deferred tax assets when uncertainty regarding their realizability exists. As of December 31, 2017 and 2016, the Company had valuation allowances of \$81 million and \$47 million on its deferred tax assets, respectively. The increase in valuation allowance at December 31, 2017 relates to certain U.S. and international jurisdictions with taxable loss or tax credit carryforwards that are expected to expire prior to utilization. The Company recognizes and measures its uncertain tax positions based on the rules under ASC 740, *Income Taxes*.

Earnings per share: The difference in the weighted average 3M shares outstanding for calculating basic and diluted earnings per share attributable to 3M common shareholders is the result of the dilution associated with the Company's stock-based compensation plans. Certain options outstanding under these stock-based compensation plans during the years 2017, 2016 and 2015 were not included in the computation of diluted earnings per share attributable to 3M common shareholders because they would have had an anti-dilutive effect (0.8 million average options for 2017, 3.6 million average options for 2016, and 5.0 million average options for 2015). The computations for basic and diluted earnings per share for the years ended December 31 follow:

Earnings Per Share Computations

(Amounts in millions, except per share amounts)	2017	2016	2015
Numerator:			
Net income attributable to 3M	\$ 4,858	\$ 5,050	\$ 4,833
Denominator:			
Denominator for weighted average 3M common shares outstanding – basic	597.5	604.7	625.6
Dilution associated with the Company's stock-based compensation plans	15.2	14.0	11.6
Denominator for weighted average 3M common shares outstanding – diluted	612.7	618.7	637.2
Earnings per share attributable to 3M common shareholders – basic	\$ 8.13	\$ 8.35	\$ 7.72
Earnings per share attributable to 3M common shareholders – diluted	\$ 7.93	\$ 8.16	\$ 7.58

Stock-based compensation: The Company recognizes compensation expense for its stock-based compensation programs, which include stock options, restricted stock, restricted stock units (RSUs), performance shares, and the General Employees' Stock Purchase Plan (GESPP). Under applicable accounting standards, the fair value of share-based compensation is determined at the grant date and the recognition of the related expense is recorded over the period in which the share-based compensation vests. However, with respect to income taxes, the related deduction from taxes payable is based on the award's intrinsic value at the time of exercise (for an option) or on the fair value upon vesting of the award (for RSUs), which can be either greater (creating an excess tax benefit) or less (creating a tax deficiency) than the deferred tax benefit recognized as compensation cost is recognized in the financial statements. Beginning in 2016, as

a result of 3M's adoption of ASU No. 2016-09, *Improvements to Employee Share-Based Payment Accounting*, these excess tax benefits/deficiencies are recognized as income tax benefit/expense in the statement of income and, within the statement of cash flows, are classified in operating activities in the same manner as other cash flows related to income taxes. The extent of excess tax benefits/deficiencies is subject to variation in 3M stock price and timing/extent of RSU vestings and employee stock option exercises. Prior to 2016, excess tax benefits were recognized in additional paid-in capital within equity, and, with respect to statement of cash flows, were reflected as a financing cash inflow. Based on the adoption methodology of ASU No. 2016-09 applied, periods prior to 2016 were not changed.

Comprehensive income: Total comprehensive income and the components of accumulated other comprehensive income (loss) are presented in the Consolidated Statement of Comprehensive Income and the Consolidated Statement of Changes in Equity. Accumulated other comprehensive income (loss) is composed of foreign currency translation effects (including hedges of net investments in international companies), defined benefit pension and postretirement plan adjustments, unrealized gains and losses on available-for-sale debt and equity securities, and unrealized gains and losses on cash flow hedging instruments.

Derivatives and hedging activities: All derivative instruments within the scope of ASC 815, *Derivatives and Hedging*, are recorded on the balance sheet at fair value. The Company uses interest rate swaps, currency and commodity price swaps, and foreign currency forward and option contracts to manage risks generally associated with foreign exchange rate, interest rate and commodity market volatility. All hedging instruments that qualify for hedge accounting are designated and effective as hedges, in accordance with U.S. generally accepted accounting principles. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. Instruments that do not qualify for hedge accounting are marked to market with changes recognized in current earnings. Cash flows from derivative instruments are classified in the statement of cash flows in the same category as the cash flows from the items subject to designated hedge or undesignated (economic) hedge relationships. The Company does not hold or issue derivative financial instruments for trading purposes and is not a party to leveraged derivatives.

Credit risk: The Company is exposed to credit loss in the event of nonperformance by counterparties in interest rate swaps, currency swaps, commodity price swaps, and forward and option contracts. However, the Company's risk is limited to the fair value of the instruments. 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. 3M enters into master netting arrangements with counterparties when possible to mitigate credit risk in derivative transactions. A master netting arrangement may allow each counterparty to net settle amounts owed between a 3M entity and the counterparty as a result of multiple, separate derivative transactions. The Company does not anticipate nonperformance by any of these counterparties. 3M has elected to present the fair value of derivative assets and liabilities within the Company's consolidated balance sheet on a gross basis even when derivative transactions are subject to master netting arrangements and may otherwise qualify for net presentation.

Fair value measurements: 3M follows ASC 820, *Fair Value Measurements and Disclosures*, with respect to assets and liabilities that are measured at fair value on a recurring basis and nonrecurring basis. Under the standard, fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The standard also establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use in valuing the asset or liability developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The hierarchy is broken down into three levels. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for the asset or liability. Categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

Acquisitions: The Company accounts for business acquisitions in accordance with ASC 805, *Business Combinations*. This standard requires the acquiring entity in a business combination to recognize all (and only) the assets acquired and liabilities assumed in the transaction and establishes the acquisition-date fair value as the measurement objective for all assets acquired and liabilities assumed in a business combination. Certain provisions of this standard prescribe, among other things, the determination of acquisition-date fair value of consideration paid in a business combination (including contingent consideration) and the exclusion of transaction and acquisition-related restructuring costs from acquisition accounting.

New Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued ASU No. 2014-09, *Revenue from Contracts with Customers*, and in August 2015 issued ASU No. 2015-14, which amended the standard as to effective date. The ASU provides a single comprehensive model to be used in the accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The standard's stated core principle is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve this core principle the ASU includes provisions within a five step model that includes identifying the contract with a customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations, and recognizing revenue when (or as) an entity satisfies a performance obligation. The standard also specifies the accounting for some costs to obtain or fulfill a contract with a customer and requires expanded disclosures about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. During 2016, the FASB also issued ASU No. 2016-08, *Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*; ASU No. 2016-10, *Identifying Performance Obligations and Licensing*; ASU No. 2016-12, *Narrow-Scope Improvements and Practical Expedients*, and ASU No. 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers* which amend ASU No. 2014-09. These amendments include clarification of principal versus agent guidance in situations in which a revenue transaction involves a third party in providing goods or services to a customer. In such circumstances, an entity must determine whether the nature of its promise to the customer is to provide the underlying goods or services (i.e., the entity is the principal in the transaction) or to arrange for the third party to provide the underlying goods or services (i.e., the entity is the agent in the transaction). The amendments clarify, in terms of identifying performance obligations, how entities would determine whether promised goods or services are separately identifiable from other promises in a contract and, therefore, would be accounted for separately. The guidance allows entities to disregard goods or services that are immaterial in the context of a contract and provides an accounting policy election to account for shipping and handling activities as fulfillment costs rather than as additional promised services. With regard to licensing, the amendments clarify how an entity would evaluate the nature of its promise in granting a license of intellectual property, which determines whether the entity recognizes revenue over time or at a point in time. The amendments also address implementation issues relative to transition (adding a practical expedient for contract modifications and clarifying what constitutes a completed contract when employing full or modified retrospective transition methods), collectability, noncash consideration, and the presentation of sales and other similar-type taxes (allowing entities to exclude sales-type taxes collected from transaction price). Finally, the amendments provide additional guidance in the areas of disclosure of performance obligations, provisions for losses on certain types of contracts, scoping, and other areas. Overall, ASU No. 2014-09, as amended, provides for either full retrospective adoption or a modified retrospective adoption by which it is applied only to the most current period presented. For 3M, the ASU is effective January 1, 2018 and the Company has concluded that it will utilize the modified retrospective method of adoption. The Company has completed analyses, executed project management relative to the process of adopting this ASU, and conducted detailed contract reviews to complete necessary adjustments to existing accounting policies and quantify the ASU's effect. For most of 3M's revenue arrangements, there are no impacts as these transactions are not accounted for under industry-specific guidance that will be superseded by the ASU and generally consist of a single performance obligation to transfer promised goods or services. 3M also engages in some arrangements for which software industry-specific guidance (which the ASU supersedes) is presently utilized. The Company also considered these arrangements in the detailed contract reviews that have been conducted. While 3M will provide expanded disclosures as a result of ASU No. 2014-09, it does not expect this standard to have a material impact on its consolidated results of operations and financial condition.

In February 2015, the FASB issued ASU No. 2015-02, *Amendments to the Consolidation Analysis*, which changes guidance related to both the variable interest entity (VIE) and voting interest entity (VOE) consolidation models. With respect to the VIE model, the standard changes, among other things, the identification of variable interests associated with fees paid to a decision maker or service provider, the VIE characteristics for a limited partner or similar entity, and the primary beneficiary determination. With respect to the VOE model, the ASU eliminates the presumption that a general partner controls a limited partnership or similar entity unless the presumption can otherwise be overcome. Under the new guidance, a general partner would largely not consolidate a partnership or similar entity under the VOE model. The Company adopted this ASU effective January 1, 2016. Because 3M did not have significant involvement with entities subject to consolidation considerations impacted by the VIE model changes or with limited partnerships potentially impacted by the VOE model changes, the adoption did not have a material impact on the Company's consolidated results of operations and financial condition.

In April 2015, the FASB issued ASU No. 2015-05, *Customer's Accounting for Fees Paid in a Cloud Arrangement*, which requires a customer to determine whether a cloud computing arrangement contains a software license. If the arrangement contains a software license, the customer would account for fees related to the software license element in a manner consistent with accounting for the acquisition of other acquired software licenses. If the arrangement does not contain a software license, the customer would account for the arrangement as a service contract. An arrangement would contain a software license element if both (1) the customer has the contractual right to take possession of the software at any time during the hosting period without significant penalty and (2) it is feasible for the customer to either run the software on its own hardware or contract with another party unrelated to the vendor to host the software. 3M adopted this ASU prospectively to arrangements entered into, or materially modified beginning January 1, 2016. The adoption did not have a material impact on 3M's consolidated results of operations and financial condition.

In July 2015, the FASB issued ASU No. 2015-11, *Simplifying the Measurement of Inventory*, which modifies existing requirements regarding measuring inventory at the lower of cost or market. Under existing standards, the market amount requires consideration of replacement cost, net realizable value (NRV), and NRV less an approximately normal profit margin. The new ASU replaces market with NRV, defined as estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. This eliminates the need to determine and consider replacement cost or NRV less an approximately normal profit margin when measuring inventory. 3M adopted this standard prospectively beginning January 1, 2017. The adoption did not have a material impact on 3M's consolidated results of operations and financial condition.

In January 2016, the FASB issued ASU No. 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, which revises the accounting related to (1) the classification and measurement of investments in equity securities and (2) the presentation of certain fair value changes for financial liabilities measured at fair value. The ASU also amends certain disclosure requirements associated with the fair value of financial instruments. The new guidance requires the fair value measurement of investments in equity securities and other ownership interests in an entity, including investments in partnerships, unincorporated joint ventures and limited liability companies (collectively, equity securities) that do not result in consolidation and are not accounted for under the equity method. Entities will need to measure these investments and recognize changes in fair value in net income. Entities will no longer be able to recognize unrealized holding gains and losses on equity securities they classify under current guidance as available-for-sale in other comprehensive income (OCI). They also will no longer be able to use the cost method of accounting for equity securities that do not have readily determinable fair values. Instead, for these types of equity investments that do not otherwise qualify for the net asset value practical expedient, entities will be permitted to elect a practicability exception and measure the investment at cost less impairment plus or minus observable price changes (in orderly transactions). The ASU also establishes an incremental recognition and disclosure requirement related to the presentation of fair value changes of financial liabilities for which the fair value option (FVO) has been elected. Under this guidance, an entity would be required to separately present in OCI the portion of the total fair value change attributable to instrument-specific credit risk as opposed to reflecting the entire amount in earnings. This provision does not apply to derivative instruments required to be measured at fair value with changes in fair value recognized in current earnings. For 3M, this standard is effective beginning January 1, 2018 via a cumulative-effect adjustment to beginning retained earnings, except for guidance relative to equity securities without readily determinable fair values which is applied prospectively. Because the Company has historically held limited amounts of equity securities (less than \$75 million in aggregate at December

31, 2017), and has not elected the FVO with respect to material financial liabilities, it does not expect this standard to have a material impact on its consolidated results of operations and financial condition.

In February 2016, the FASB issued ASU No. 2016-02, *Leases*, replacing existing lease accounting guidance. The new standard introduces a lessee model that would require entities to recognize assets and liabilities for most leases, but recognize expenses on their income statements in a manner similar to current accounting. The ASU does not make fundamental changes to existing lessor accounting. However, it modifies what qualifies as a sales-type and direct financing lease and related accounting and aligns a number of the underlying principles with those of the new revenue standard, ASU No. 2014-09, such as evaluating how collectability should be considered and determining when profit can be recognized. The guidance eliminates existing real estate-specific provisions and requires expanded qualitative and quantitative disclosures. The standard requires modified retrospective transition by which it is applied at the beginning of the earliest comparative period presented in the year of adoption. For 3M, the ASU is effective January 1, 2019. Information under existing lease guidance with respect to rent expense for operating leases and the Company's minimum lease payments for capital and operating leases with non-cancelable terms in excess one year as of December 31, 2017 is included in Note 15. The Company is currently assessing this ASU's impact on 3M's consolidated results of operations and financial condition.

In March 2016, the FASB issued ASU No. 2016-06, *Contingent Put and Call Options in Debt Instruments*. This ASU clarifies guidance used to determine if debt instruments that contain contingent put or call options would require separation of the embedded put or call feature from the debt instrument and trigger accounting for the feature as a derivative with changes in fair value recorded through income. Under the new guidance, fewer put or call options embedded in debt instruments would require derivative accounting. For 3M, this ASU was effective January 1, 2017. The Company's outstanding debt with embedded put provisions did not require separate derivative accounting under existing guidance. As a result, the adoption of this standard did not have a material impact on the Company's consolidated results of operations and financial condition.

In March 2016, the FASB issued ASU No. 2016-07, *Simplifying the Transition to the Equity Method of Accounting*, which eliminates the existing requirement to apply the equity method of accounting retrospectively (revising prior periods as if the equity method had always been applied) when an entity obtains significant influence over a previously held investment. The new guidance would require the investor to apply the equity method prospectively from the date the investment qualifies for the equity method. The investor would add the carrying value of the existing investment to the cost of any additional investment to determine the initial cost basis of the equity method investment. For 3M, this ASU was effective January 1, 2017 on a prospective basis. 3M will apply this guidance to investments that transition to the equity method after the adoption date.

In June 2016, the FASB issued ASU No. 2016-13, *Measurement of Credit Losses on Financial Instruments*, which revises guidance for the accounting for credit losses on financial instruments within its scope. The new standard introduces an approach, based on expected losses, to estimate credit losses on certain types of financial instruments and modifies the impairment model for available-for-sale debt securities. The new approach to estimating credit losses (referred to as the current expected credit losses model) applies to most financial assets measured at amortized cost and certain other instruments, including trade and other receivables, loans, held-to-maturity debt securities, net investments in leases and off-balance-sheet credit exposures. With respect to available-for-sale (AFS) debt securities, the ASU amends the current other-than-temporary impairment model. For such securities with unrealized losses, entities will still consider if a portion of any impairment is related only to credit losses and therefore recognized as a reduction in income. However, rather than also reflecting that credit loss amount as a permanent reduction in cost (amortized cost) basis of that AFS debt security, the ASU requires that credit losses be reflected as an allowance. As a result, under certain circumstances, a recovery in value could result in previous allowances, or portions thereof, reversing back into income. For 3M, this ASU is effective January 1, 2020, with early adoption permitted. Entities are required to apply the standard's provisions as a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. The Company is currently assessing this ASU's impact on 3M's consolidated result of operations and financial condition.

In August 2016, the FASB issued ASU No. 2016-15, *Classification of Certain Cash Receipts and Cash Payments*, which is intended to reduce diversity in practice in how certain cash receipts and payments are presented and classified in the

statement of cash flows. The standard provides guidance in a number of situations including, among others, settlement of zero-coupon bonds, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims, and distributions received from equity method investees. The ASU also provides guidance for classifying cash receipts and payments that have aspects of more than one class of cash flows. The Company early adopted ASU No. 2016-15 as of January 1, 2017. Since the associated changes in classification were immaterial to all prior periods presented, no impact was reflected in the Company's pre-2017 consolidated results of operations and financial condition presented.

In October 2016, the FASB issued ASU No. 2016-16, *Intra-Entity Transfers of Assets Other Than Inventory*, which modifies existing guidance and is intended to reduce diversity in practice with respect to the accounting for the income tax consequences of intra-entity transfers of assets. The ASU indicates that the current exception to income tax accounting that requires companies to defer the income tax effects of certain intercompany transactions would apply only to intercompany inventory transactions. That is, the exception would no longer apply to intercompany sales and transfers of other assets (e.g., intangible assets). Under the existing exception, income tax expense associated with intra-entity profits in an intercompany sale or transfer of assets is eliminated from earnings. Instead, that cost is deferred and recorded on the balance sheet (e.g., as a prepaid asset) until the assets leave the consolidated group. Similarly, the entity is prohibited from recognizing deferred tax assets for the increases in tax bases due to the intercompany sale or transfer. For 3M, this ASU is effective January 1, 2018. The standard requires modified retrospective transition with a cumulative catch-up adjustment to opening retained earnings in the period of adoption. Upon adoption, a company would write off any income tax effects that had been deferred from past intercompany transactions involving non-inventory assets to opening retained earnings. In addition, an entity would record deferred tax assets with an offset to opening retained earnings for amounts that entity had previously not recognized under existing guidance but would recognize under the new guidance. Based on deferred tax amounts related to applicable past intercompany transactions as of December 31, 2017, the Company does not expect this ASU to have a material impact on 3M's consolidated results of operations and financial condition.

In October 2016, the FASB issued ASU No. 2016-17, *Interests Held through Related Parties That Are under Common Control*, which modifies existing guidance with respect to how a decision maker that holds an indirect interest in a variable interest entity (VIE) through a common control party determines whether it is the primary beneficiary of the VIE as part of the analysis of whether the VIE would need to be consolidated. Under the ASU, a decision maker would need to consider only its proportionate indirect interest in the VIE held through a common control party. Previous guidance had required the decision maker to treat the common control party's interest in the VIE as if the decision maker held the interest itself. As a result of the ASU, in certain cases, previous consolidation conclusions may change. For 3M, the standard was effective January 1, 2017 with retrospective application to January 1, 2016. 3M does not have significant involvement with entities subject to consolidation considerations impacted by VIE model factors. As a result, the adoption of this ASU did not have a material impact on the Company's consolidated results of operations and financial condition.

In November 2016, the FASB issued ASU No. 2016-18, *Restricted Cash*, which clarifies guidance on the classification and presentation of restricted cash in the statement of cash flows. Under the ASU, changes in restricted cash and restricted cash equivalents would be included along with those of cash and cash equivalents in the statement of cash flows. As a result, entities would no longer present transfers between cash/equivalents and restricted cash/equivalents in the statement of cash flows. In addition, a reconciliation between the balance sheet and the statement of cash flows would be disclosed when the balance sheet includes more than one line item for cash/equivalents and restricted cash/equivalents. The Company early adopted ASU No. 2016-18 as of January 1, 2017. Due to the immaterial use of restricted cash and restricted cash equivalents, no impact was reflected in the Company's pre-2017 consolidated results of operations and financial condition presented.

In January 2017, the FASB issued ASU No. 2017-01, *Clarifying the Definition of a Business*, which narrows the existing definition of a business and provides a framework for evaluating whether a transaction should be accounted for as an acquisition (or disposal) of assets or a business. The ASU requires an entity to evaluate if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets; if so, the set of transferred assets and activities (collectively, the set) is not a business. To be considered a business, the set would need to include an input and a substantive process that together significantly contribute to the ability to create

outputs. The standard also narrows the definition of outputs. The definition of a business affects areas of accounting such as acquisitions, disposals and goodwill. Under the new guidance, fewer acquired sets are expected to be considered businesses. For 3M, this ASU is effective January 1, 2018 on a prospective basis with early adoption permitted. 3M would apply this guidance to applicable transactions after the adoption date.

In January 2017, the FASB issued ASU No. 2017-04, *Simplifying the Test for Goodwill Impairment*. Under the new standard, goodwill impairment would be measured as the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying value of goodwill. This ASU eliminates existing guidance that requires an entity to determine goodwill impairment by calculating the implied fair value of goodwill by hypothetically assigning the fair value of a reporting unit to all of its assets and liabilities as if that reporting unit had been acquired in a business combination. For 3M, this ASU is effective prospectively to impairment tests beginning January 1, 2020, with early adoption permitted. 3M adopted this ASU in the fourth quarter of 2017 in conjunction with its annual goodwill impairment testing. The adoption did not have an impact on 3M's consolidated results of operations and financial condition.

In February 2017, the FASB issued ASU No. 2017-05, *Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets*. This ASU addresses scope-related questions that arose after the FASB issued its revenue guidance in ASU No. 2014-09, *Revenue from Contracts with Customers*. The new standard clarifies the accounting for derecognition of nonfinancial assets and defines what is considered an in substance nonfinancial asset. Nonfinancial assets largely relate to items such as real estate, ships and intellectual property that do not constitute a business. The new ASU impacts entities derecognizing (e.g. selling) nonfinancial assets (or in substance nonfinancial assets), including partial interests therein, when the purchaser is not a customer. Under the new guidance, the seller would apply certain recognition and measurement principles of ASU No. 2014-09, *Revenue from Contracts with Customers*, even though the purchaser is not a customer. For 3M, this new standard is effective coincident with the Company's January 1, 2018 adoption of ASU No. 2014-09. The Company does not expect this ASU to have a material impact on 3M's consolidated results of operations and financial condition.

In March 2017, the FASB issued ASU No. 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. This ASU changed how employers that sponsor defined benefit pension and/or other postretirement benefit plans present the net periodic benefit cost in the income statement. Under the new standard, only the service cost component of net periodic benefit cost is included in operating expenses and only the service cost component is eligible for capitalization into assets such as inventory. All other net periodic benefit costs components (such as interest, expected return on plan assets, prior service cost amortization and actuarial gain/loss amortization) are reported outside of operating income. 3M adopted this ASU effective January 1, 2018 on a retrospective basis; however, guidance limiting the capitalization to only the service cost component is applied on prospective basis. The components of 3M's net periodic defined benefit pension and postretirement benefit costs are presented in Note 12. The retrospective application of this ASU, had no impact on the Company's previously reported consolidated income before income taxes and net income attributable to 3M. However, non-service cost components of pension and postretirement benefit costs in prior years representing income of \$128 million and \$196 million in total year 2017 and 2016, respectively, and an expense of \$34 million in total year 2015 have been reclassified from operating expenses and are now reported outside of operating income within other expense (income), net. The impact of adoption of this ASU on previously reported amounts in the consolidated statement of income are described earlier in Note 1. Further, the capitalization of service cost change is not expected to have a material impact on 3M's consolidated results of operations and financial condition.

In March 2017, the FASB issued ASU No. 2017-08, *Premium Amortization on Purchased Callable Debt Securities*, which amends the amortization period for certain purchased callable debt securities held at a premium. Under existing standards, entities generally amortize the premium as an adjustment of yield over the contractual life of the instrument. The new guidance shortens the amortization period to the earliest call date for certain callable debt securities that have explicit, noncontingent call features and are callable at a fixed price and preset date. The amendments do not require an accounting change for securities held at a discount. For 3M, this ASU is effective January 1, 2019 with a modified retrospective transition resulting in a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. Early adoption is permitted. 3M's marketable security portfolio includes very limited instances of callable debt securities held at a premium. As a result, the Company does not expect this ASU to have a material impact on 3M's consolidated results of operations and financial condition.

In May 2017, the FASB issued ASU No. 2017-09, *Scope of Modification Accounting*, that clarifies when changes to the terms or conditions of a share-based payment award must be accounted for as a modification. The general model for accounting for modifications of share-based payment awards is to record the incremental value arising from the changes as additional compensation cost. Under the new standard, fewer changes to the terms of an award would require accounting under this modification model. For 3M, this ASU is effective January 1, 2018, with early adoption permitted. Because the Company does not typically make changes to the terms or conditions of its issued share-based payment awards, 3M does not expect this ASU to have a material impact on its consolidated results of operations and financial condition.

In May 2017, the FASB issued ASU No. 2017-10, *Determining the Customer of the Operation Services*, that clarifies how an operating entity determines the customer of the operation services for transactions within the scope of a service concession arrangement. Service concession arrangements are typically agreements between a grantor and an operating entity whereby the operating entity will operate the grantor's infrastructure (i.e. airports, roadways, bridges, and prisons) for a specified period of time. The operating entity also may be required to maintain the infrastructure and provide capital-intensive maintenance to enhance or extend its life. In such arrangements, typically the operation services (i.e. operation and maintenance of a roadway) would be used by third parties (i.e. drivers). The ASU clarifies that the grantor, not the third party, is the customer of the operation services in such arrangements. For 3M, this new standard is effective coincident with the Company's January 1, 2018 adoption of ASU No. 2014-09. Because the Company is not typically a party to agreements within the scope of accounting for service concession arrangements, 3M does not expect this ASU to have a material impact on its consolidated results of operations and financial condition.

In July 2017, the FASB issued ASU No. 2017-11, *(Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception*. The new standard applies to issuers of financial instruments with down-round features. A down-round provision is a term in an equity-linked financial instrument (i.e. a freestanding warrant contract or an equity conversion feature embedded within a host debt or equity contract) that triggers a downward adjustment to the instrument's strike price (or conversion price) if equity shares are issued at a lower price (or equity-linked financial instruments are issued at a lower strike price) than the instrument's then-current strike price. The purpose of the feature is typically to protect the instrument's counterparty from future issuances of equity shares at a more favorable price. The ASU amends (1) the classification of such instruments as liabilities or equity by revising certain guidance relative to evaluating if they must be accounted for as derivative instruments and (2) the guidance on recognition and measurement of freestanding equity-classified instruments. For 3M, this ASU is effective January 1, 2019, with early adoption permitted. Because the Company has not issued financial instruments with down-round features, 3M does not expect this ASU to have a material impact on its consolidated results of operations and financial condition.

In August 2017, the FASB issued ASU No. 2017-12, *Targeted Improvements to Accounting for Hedging Activities*. The ASU amends existing guidance to simplify the application of hedge accounting in certain situations and allow companies to better align their hedge accounting with their risk management activities. Existing standards contain certain requirements for an instrument to qualify for hedge accounting relative to initial and ongoing assessments of hedge effectiveness. While an initial quantitative test to establish the hedge relationship is highly effective would still be required, the new ASU permits subsequent qualitative assessments for certain hedges instead of a quantitative test and expands the timeline for performing the initial quantitative assessment. The ASU also simplifies related accounting by eliminating the requirement to separately measure and report hedge ineffectiveness. Instead, for qualifying cash flow and net investment hedges, the entire change in fair value (including the amount attributable to ineffectiveness) will be recorded within other comprehensive income and reclassified to earnings in the same income statement line that is used to present the earnings effect of the hedged item when the hedged item affects earnings. For fair value hedges, generally, the entire change in fair value of the hedging instrument would also be presented in the same income statement line as the hedged item. The new standard also simplifies the accounting for fair value hedges of interest rate risks and expands an entity's ability to hedge nonfinancial and financial risk components. In addition, the guidance also eases certain documentation requirements, modifies the accounting for components excluded from the assessment of hedge effectiveness, and requires additional tabular disclosures of derivative and hedge-related information. For 3M, this ASU is effective January 1, 2019, with a modified retrospective transition resulting in a cumulative-effect adjustment recorded

to the opening balance of retained earnings as of the adoption date. Early adoption is permitted. The Company is currently assessing this ASU's impact on 3M's consolidated results of operations and financial condition.

NOTE 2. Acquisitions and Divestitures

Acquisitions:

3M makes acquisitions of certain businesses from time to time that are aligned with its strategic intent with respect to, among other factors, growth markets and adjacent product lines or technologies. Goodwill resulting from business combinations is largely attributable to the existing workforce of the acquired businesses and synergies expected to arise after 3M's acquisition of these businesses.

In addition to business combinations, 3M periodically acquires certain tangible and/or intangible assets and purchases interests in certain enterprises that do not otherwise qualify for accounting as business combinations. These transactions are largely reflected as additional asset purchase and investment activity.

2017 acquisitions:

In September 2017, 3M purchased all of the ownership interests of Elution Technologies, LLC, a Vermont-based manufacturer of test kits that help enable food and beverage companies ensure their products are free from certain potentially harmful allergens such as peanuts, soy or milk. Elution is reported within the Company's Health Care business.

In October 2017, 3M completed the acquisition of the underlying legal entities and associated assets of Scott Safety, which is headquartered in Monroe, North Carolina, from Johnson Controls for \$2.0 billion of cash, net of cash acquired. Scott Safety is a premier manufacturer of innovative products, including self-contained breathing apparatus systems, gas and flame detection instruments, and other safety devices that complement 3M's personal safety portfolio. The business had revenues of approximately \$570 million in 2016. Scott Safety is reported within 3M's Safety and Graphics business. The allocation of purchase consideration related to Scott Safety is considered preliminary with provisional amounts primarily related to intangible assets and certain tax-related, contingent liability and working capital items. 3M expects to finalize the allocation of purchase price within the one year measurement-period following the acquisition.

Pro forma information related to acquisitions has not been included because the impact on the Company's consolidated results of operations was not considered material. The following table shows the impact on the consolidated balance sheet of the purchase price allocations related to 2017 acquisitions and assigned finite-lived intangible asset weighted-average lives.

(Millions) Asset (Liability)	2017 Acquisition Activity			Finite-Lived Intangible-Asset Weighted- Average Lives (Years)
	Scott Safety	Other	Total	
Accounts receivable	\$ 100	\$ —	\$ 100	
Inventory	79	—	79	
Other current assets	10	—	10	
Property, plant, and equipment	74	—	74	
Purchased finite-lived intangible assets:				
Customer related intangible assets	439	3	442	15
Other technology-based intangible assets	125	2	127	10
Definite-lived tradenames	285	—	285	17
Other amortizable intangible assets	—	1	1	5
Purchased goodwill	1,296	6	1,302	
Accounts payable and other liabilities	(100)	—	(100)	
Deferred tax asset/(liability)	(297)	—	(297)	
Net assets acquired	\$ 2,011	\$ 12	\$ 2,023	
Supplemental information:				
Cash paid	\$ 2,020	\$ 12	\$ 2,032	
Less: Cash acquired	9	—	9	
Cash paid, net of cash acquired	\$ 2,011	\$ 12	\$ 2,023	

Purchased identifiable finite-lived intangible assets related to acquisition activity in 2017 totaled \$855 million. The associated finite-lived intangible assets acquired in 2017 will be amortized on a systematic and rational basis (generally straight line) over a weighted-average life of 15 years (lives ranging from four to 17 years). Acquired in-process research and development and identifiable intangible assets for which significant assumed renewals or extensions of underlying arrangements impacted the determination of their useful lives were not material.

2016 acquisitions:

In September 2016, 3M acquired all of the outstanding shares of Semfinder, headquartered in Kreuzlingen, Switzerland. Semfinder is a leading developer of precision software that enables efficient coding of medical procedures in multiple languages. The purchase price paid for these business combinations (net of cash acquired) during 2016 aggregated to \$16 million. Semfinder is reported within 3M's Health Care business.

Adjustments in 2016 to the preliminary purchase price allocations of other acquisitions within the allocation period primarily related to the identification of contingent liabilities and certain tax-related items aggregating to approximately \$35 million along with other balances related to the 2015 acquisition of Capital Safety Group S.A.R.L. The change to provisional amounts resulted in an immaterial impact to the results of operations in the third quarter of 2016, a portion of which related to earlier quarters in the measurement period.

Purchased identifiable finite-lived intangible assets related to acquisition activity in 2016 totaled \$4 million. The associated finite-lived intangible assets acquired in 2016 will be amortized on a systematic and rational basis (generally straight line) over a weighted-average life of 8 years (lives ranging from two to 20 years). Acquired in-process research and development and identifiable intangible assets for which significant assumed renewals or extensions of underlying arrangements impacted the determination of their useful lives were not material.

2015 acquisitions:

In March 2015, 3M purchased all of the outstanding shares of Ivera Medical Corp., headquartered in San Diego, California. Ivera Medical Corp. is a manufacturer of health care products that disinfect and protect devices used for access into a patient's bloodstream and is reported within 3M's Health Care business. In addition, in the first quarter of

2015, 3M purchased the remaining interest in a former equity method investment reported within 3M's Industrial business for an immaterial amount.

In August 2015, 3M acquired all of the outstanding shares of Capital Safety Group S.A.R.L., with operating headquarters in Bloomington, Minnesota, from KKR & Co. L.P. for \$1.7 billion, net of cash acquired. The net assets acquired included the assumption of \$0.8 billion of debt. Capital Safety is a leading global provider of fall protection equipment and is reported within 3M's Safety and Graphics business.

In August 2015, 3M acquired the assets and liabilities associated with Polypore International, Inc.'s Separations Media business (hereafter referred to as Membrana), headquartered in Wuppertal, Germany, for \$1.0 billion. Membrana is a leading provider of microporous membranes and modules for filtration in the life sciences, industrial and specialty segments and is reported within 3M's Industrial business.

The impact on the consolidated balance sheet of the purchase price allocations related to 2015 acquisitions and assigned weighted-average intangible asset lives, including adjustments relative to other acquisitions within the measurement period, follows. Adjustments in 2015 to the preliminary allocations primarily related to the identification and valuation of certain indefinite-lived intangible assets. The change to provisional amounts resulted in an immaterial impact to results of operations in the fourth quarter of 2015, a portion of which relates to earlier quarters in the measurement period.

(Millions) Asset (Liability)	2015 Acquisition Activity				Finite-Lived Intangible- Asset Weighted- Average Lives (Years)
	Capital Safety	Polypore Separations Media (Membrana)	Other	Total	
Accounts receivable	\$ 66	\$ 30	\$ 7	\$ 103	
Inventory	63	35	4	102	
Other current assets	10	1	1	12	
Property, plant, and equipment	36	128	7	171	
Purchased finite-lived intangible assets:					
Customer related intangible assets	445	270	40	755	16
Patents	44	11	7	62	7
Other technology-based intangible assets	85	42	1	128	7
Definite-lived tradenames	26	6	1	33	16
Other amortizable intangible assets	—	—	2	2	4
Purchased indefinite-lived intangible assets	520	—	—	520	
Purchased goodwill	1,764	636	95	2,495	
Accounts payable and other liabilities, net of other assets	(105)	(122)	(5)	(232)	
Interest bearing debt	(766)	—	—	(766)	
Deferred tax asset/(liability)	(464)	—	(7)	(471)	
Net assets acquired	\$ 1,724	\$ 1,037	\$ 153	\$ 2,914	
Supplemental information:					
Cash paid	\$ 1,758	\$ 1,037	\$ 154	\$ 2,949	
Less: Cash acquired	34	—	1	35	
Cash paid, net of cash acquired	\$ 1,724	\$ 1,037	\$ 153	\$ 2,914	

Purchased identifiable finite-lived intangible assets related to acquisition activity in 2015 totaled \$1.0 billion. The associated finite-lived intangible assets acquired in 2015 will be amortized on a systematic and rational basis (generally straight line) over a weighted-average life of 14 years (lives ranging from two to 20 years). Indefinite-lived intangible assets of \$520 million relate to certain tradenames associated with the Capital Safety acquisition which have been in existence for over 55 years, have a history of leading market-share positions, have been and are intended to be continuously renewed, and the associated products of which are expected to generate cash flows for 3M for an indefinite period of time. Acquired in-process research and development and identifiable intangible assets for which significant

assumed renewals or extensions of underlying arrangements impacted the determination of their useful lives were not material.

Divestitures:

3M may divest certain businesses from time to time based upon review of the Company's portfolio considering, among other items, factors relative to the extent of strategic and technological alignment and optimization of capital deployment, in addition to considering if selling the businesses results in the greatest value creation for the Company and for shareholders.

In January 2015, 3M completed the sale of its global Static Control business to Desco Industries Inc., based in Chino, California. 2014 sales of this business were \$46 million. This transaction was not considered material and was reported within 3M's Electronics and Energy business.

In the fourth quarter of 2015, 3M entered into agreements with One Equity Partners Capital Advisors L.P. (OEP) to sell the assets of 3M's library systems business. The sales of the North American business and the majority of the business outside of North America closed in October and November 2015, respectively. The sale of the remainder of the library systems business closed in the first quarter of 2016 (discussed further below). In December 2015, 3M also completed the sale of Faab Fabricauto, a wholly-owned subsidiary of 3M, to Hills Numberplates Limited. The library systems business, part of the former Traffic Safety and Security Division, delivers circulation management solutions to library customers with on-premise hardware and software, maintenance and service, and an emerging cloud-based digital lending platform. Faab Fabricauto, also part of the former Traffic Safety and Security Division, is a leading French manufacturer of license plates and signage solutions. The aggregate cash proceeds relative to the 2015 global library systems and Faab Fabricauto divestiture transactions was \$104 million. The Company recorded within 3M's Safety and Graphics business a net pre-tax gain of \$40 million in 2015 as a result of the sale and any adjustment of carrying value.

In the first quarter of 2016, 3M completed the sale of the remainder of the assets of 3M's library systems business to One Equity Partners Capital Advisors L.P. (OEP). 3M had previously sold the North American business and the majority of the business outside of North America to OEP in the fourth quarter of 2015 which was reported within 3M's Safety and Graphics business. Also in the first quarter of 2016, 3M sold to Innovative Chemical Products Group, a portfolio company of Audax Private Equity, the assets of 3M's pressurized polyurethane foam adhesives business (formerly known as Polyfoam). This business is a provider of pressurized polyurethane foam adhesive formulations and systems into the residential roofing, commercial roofing and insulation and industrial foam segments in the United States with annual sales of approximately \$20 million and was reported within 3M's Industrial business. The Company recorded a pre-tax gain of \$40 million in the first quarter of 2016 as a result of the sales of these businesses.

In October 2016, 3M sold the assets of its temporary protective films business to Pregis LLC. This business, with annual sales of approximately \$50 million, is a provider of adhesive-backed temporary protective films used in a broad range of industries and was reported within 3M's Industrial business. In December 2016, 3M sold the assets of its cathode battery technology out-licensing business, with annual sales of approximately \$10 million, to UMICORE. This business was reported within 3M's Electronics and Energy business. The aggregate selling price relative to these two businesses was \$86 million. The Company recorded a pre-tax gain of \$71 million in the fourth quarter of 2016 as a result of the sales of these businesses.

In January 2017, 3M sold the assets of its safety prescription eyewear business, with annual sales of approximately \$45 million, to HOYA Vision Care. The Company recorded a pre-tax gain of \$29 million in the first quarter of 2017 as a result of this sale, which was reported within the Company's Safety and Graphics business.

In May 2017, 3M completed the related sale or transfer of control, as applicable, of its identity management business to Gemalto N.V. This business, with 2016 sales of approximately \$205 million, is a leading provider in identity management solutions, including biometric hardware and software that enable identity verification and authentication, as well as secure materials and document readers. In June 2017, 3M also completed the sale of its tolling and automated license/number plate recognition business, with annual sales of approximately \$40 million, to Neology, Inc. 3M's tolling and automated license/number plate recognition business includes RFID readers and tags, automatic vehicle

classification systems, lane controller and host software, and back office software and services. It also provides mobile and fixed cameras, software, and services in automated license/number plate recognition. 3M received proceeds of \$833 million, or \$809 million net of cash sold, and reflected a pre-tax gain of \$458 million as a result of these two divestitures, which was reported within the Company's Safety and Graphics business.

In October 2017, 3M sold its electronic monitoring business to an affiliate of Apax Partners. This business, with annual sales of approximately \$95 million, is a provider of electronic monitoring technologies, serving hundreds of correctional and law enforcement agencies around the world. 3M received proceeds of \$201 million, net of cash sold, and reflected a pre-tax gain of \$98 million in the fourth quarter of 2017 as a result of this divestiture, which was reported within the Company's Safety and Graphics business.

In the fourth quarter of 2017, 3M sold the assets of an electrical marking/labeling business within its Electronics and Energy business. The former activity, proceeds and gain were not considered material.

In December 2017, 3M agreed to sell substantially all of its Communication Markets Division to Corning Incorporated, for \$900 million, subject to closing and other adjustments. This business, with annual sales of approximately \$400 million consists of optical fiber and copper passive connectivity solutions for the telecommunications industry including 3M's xDSL, FTTx, and structured cabling solutions and, in certain countries, telecommunications system integration services. This sale is expected to close in 2018, subject to consultation or information requirements with relevant works councils and to customary closing conditions and regulatory approvals. 3M expects a pre-tax gain of approximately \$500 million as a result of this divestiture that will be reported within the Company's Electronics and Energy business.

In February 2018, 3M closed on the sale of certain personal safety product offerings primarily focused on noise, environmental, and heat stress monitoring to TSI, Inc. This business has annual sales of approximately \$15 million. The transaction is expected to result in a pre-tax gain of less than \$20 million that will be reported within the Company's Safety and Graphics business.

The aggregate operating income of these businesses was approximately \$45 million, \$50 million and not significant in 2017, 2016 and 2015, respectively. The approximate amounts of major assets and liabilities associated with disposal groups classified as held-for-sale as of December 31, 2017 and December 31, 2016, included the following:

(Millions)	December 31, 2017	December 31, 2016
Accounts receivable	\$ 25	\$ 25
Property, plant and equipment (net)	20	25
Intangible assets	—	35
Deferred revenue (other current liabilities)	—	35

In addition, approximately \$270 million of goodwill was estimated to be attributable to disposal groups classified as held-for-sale as of both December 31, 2017 and December 31, 2016, based upon relative fair value. The amounts above have not been segregated and are classified within the existing corresponding line items on the Company's consolidated balance sheet.

NOTE 3. Goodwill and Intangible Assets

Purchased goodwill from acquisitions totaled \$1.3 billion in 2017, none of which is deductible for tax purposes. Purchased goodwill from acquisitions totaled \$14 million in 2016, none of which is deductible for tax purposes. The acquisition activity in the following table also includes the net impact of adjustments to the preliminary allocation of purchase price within the one year measurement-period following prior acquisitions, which increased goodwill by \$39 million during 2016. The amounts in the “Translation and other” column in the following table primarily relate to changes in foreign currency exchange rates. The goodwill balance by business segment follows:

Goodwill

(Millions)	Dec. 31, 2015 Balance	2016 acquisition activity	2016 translation and other	Dec. 31, 2016 Balance	2017 acquisition activity	2017 divestiture activity	2017 translation and other	Dec. 31, 2017 Balance
Industrial	\$ 2,573	\$ —	\$ (37)	\$ 2,536	\$ —	\$ —	\$ 142	\$ 2,678
Safety and Graphics	3,342	41	(59)	3,324	1,296	(323)	122	4,419
Health Care	1,624	12	(27)	1,609	6	—	67	1,682
Electronics and Energy	1,510	—	(21)	1,489	—	—	35	1,524
Consumer	200	—	8	208	—	—	2	210
Total Company	\$ 9,249	\$ 53	\$ (136)	\$ 9,166	\$ 1,302	\$ (323)	\$ 368	\$ 10,513

Accounting standards require that goodwill be tested for impairment annually and between annual tests in certain circumstances such as a change in reporting units or the testing of recoverability of a significant asset group within a reporting unit. At 3M, reporting units correspond to a division.

As described in Note 17, effective in the first quarter of 2018, the Company changed its business segment reporting in its continuing effort to improve the alignment of its businesses around markets and customers. In addition, certain shared film manufacturing and supply technology platform resources formerly reflected within the Electronics and Energy business segment were combined with other shared and centrally managed material resource centers of expertise within Corporate and Unallocated. For any product changes that resulted in reporting unit changes, the Company applied the relative fair value method to determine the impact on goodwill of the associated reporting units. During the first quarter of 2018, the Company completed its assessment of any potential goodwill impairment for reporting units impacted by this new structure and determined that no impairment existed. The Company also completed its annual goodwill impairment test in the fourth quarter of 2017 for all reporting units and determined that no impairment existed. In addition, the Company had no impairments of goodwill in prior years.

Acquired Intangible Assets

The carrying amount and accumulated amortization of acquired finite-lived intangible assets, in addition to the balance of non-amortizable intangible assets, as of December 31, follow:

(Millions)	December 31, 2017	December 31, 2016
Customer related intangible assets	\$ 2,332	\$ 1,939
Patents	561	602
Other technology-based intangible assets	583	524
Definite-lived tradenames	678	420
Other amortizable intangible assets	207	211
Total gross carrying amount	<u>\$ 4,361</u>	<u>\$ 3,696</u>
Accumulated amortization — customer related	(874)	(797)
Accumulated amortization — patents	(489)	(497)
Accumulated amortization — other technology based	(292)	(302)
Accumulated amortization — definite-lived tradenames	(256)	(236)
Accumulated amortization — other	(162)	(173)
Total accumulated amortization	<u>\$ (2,073)</u>	<u>\$ (2,005)</u>
Total finite-lived intangible assets — net	<u>\$ 2,288</u>	<u>\$ 1,691</u>
Non-amortizable intangible assets (primarily tradenames)	648	629
Total intangible assets — net	<u>\$ 2,936</u>	<u>\$ 2,320</u>

Certain tradenames acquired by 3M are not amortized because they have been in existence for over 55 years, have a history of leading-market share positions, have been and are intended to be continuously renewed, and the associated products of which are expected to generate cash flows for 3M for an indefinite period of time.

Amortization expense for the years ended December 31 follows:

(Millions)	2017	2016	2015
Amortization expense	<u>\$ 238</u>	<u>\$ 262</u>	<u>\$ 229</u>

Expected amortization expense for acquired amortizable intangible assets recorded as of December 31, 2017 follows:

(Millions)	2018	2019	2020	2021	2022	After 2022
Amortization expense	<u>\$ 252</u>	<u>\$ 242</u>	<u>\$ 231</u>	<u>\$ 221</u>	<u>\$ 208</u>	<u>\$ 1,134</u>

The preceding expected amortization expense is an estimate. Actual amounts of amortization expense may differ from estimated amounts due to additional intangible asset acquisitions, changes in foreign currency exchange rates, impairment of intangible assets, accelerated amortization of intangible assets and other events. 3M expenses the costs incurred to renew or extend the term of intangible assets.

NOTE 4. Restructuring Actions and Exit Activities

2017 Restructuring Actions:

During the second quarter of 2017, management approved and committed to undertake certain restructuring actions primarily focused on portfolio and footprint optimization. These actions affected approximately 1,300 positions worldwide and resulted in a second quarter 2017 pre-tax charge of \$99 million. Remaining activities related to restructuring are expected to be completed by the end of 2018.

Restructuring charges are summarized by business segment as follows:

(Millions)	Second Quarter 2017	
	Employee-Related	
Industrial	\$	39
Safety and Graphics		9
Health Care		2
Electronics and Energy		7
Consumer		36
Corporate and Unallocated		6
Total Expense	\$	99

The preceding restructuring charges were recorded in the income statement as follows:

(Millions)	Second Quarter 2017	
	Cost of sales	\$
Selling, general and administrative expenses		5
Research, development and related expenses		8
Total	\$	99

Restructuring actions, including cash and non-cash impacts, follow:

(Millions)	Employee-Related	
	Expense incurred in the second quarter of 2017	\$
Cash payments		(8)
Adjustments		(3)
Accrued restructuring action balances as of December 31, 2017	\$	88

2017 Exit Activities:

During the first quarter of 2017, the Company recorded net pre-tax charges of \$24 million related to exit activities. These charges related to employee reductions, primarily in Western Europe. During the fourth quarter of 2017, the Company recorded net pre-tax charges of \$23 million related to exit activities. These charges related to employee reductions, primarily in the United States and Western Europe.

2015 Restructuring Actions:

During the fourth quarter of 2015, management approved and committed to undertake certain restructuring actions primarily focused on structural overhead, largely in the U.S. and slower-growing markets, with particular emphasis on Europe, Middle East, and Africa (EMEA) and Latin America. This impacted approximately 1,700 positions worldwide and resulted in a fourth-quarter 2015 pre-tax charge of \$114 million.

Components of these restructuring charges are summarized by business segment as follows:

(Millions)	2015		
	Employee-Related	Asset-Related	Total
Industrial	\$ 30	\$ 12	\$ 42
Safety and Graphics	11	—	11
Health Care	9	—	9
Electronics and Energy	8	4	12
Consumer	3	—	3
Corporate and Unallocated	37	—	37
Total Expense	\$ 98	\$ 16	\$ 114

The preceding restructuring charges were recorded in the income statement as follows:

(Millions)	2015
Cost of sales	40
Selling, general and administrative expenses	62
Research, development and related expenses	12
Total	\$ 114

Components of these restructuring actions, including cash and non-cash impacts, follow:

(Millions)	Employee-Related	Asset-Related	Total
Expense incurred	\$ 98	\$ 16	\$ 114
Non-cash changes	(8)	(16)	(24)
Cash payments	(27)	—	(27)
Accrued restructuring action balances as of December 31, 2015	\$ 63	\$ —	\$ 63
Cash payments	(57)	—	(57)
Accrued restructuring action balances as of December 31, 2016	\$ 6	\$ —	\$ 6
Cash payments	(6)	—	(6)
Accrued restructuring action balances as of December 31, 2017	\$ —	\$ —	\$ —

Non-cash changes include certain pension settlements and special termination benefits recorded in accrued defined benefit pension and postretirement benefits and accelerated depreciation resulting from the cessation of use of certain long-lived assets.

NOTE 5. Supplemental Income Statement Information

Other expense (income), net consists of the following:

(Millions)	2017	2016	2015
Interest expense	\$ 322	\$ 199	\$ 149
Interest income	(50)	(29)	(26)
Pension and postretirement net periodic benefit cost (benefit)	(128)	(196)	34
Total	\$ 144	\$ (26)	\$ 157

The Company recorded an early debt extinguishment charge of approximately \$96 million which was included within interest expense in the fourth quarter of 2017.

Pension and postretirement net periodic benefit costs described in the table above include all components of defined benefit plan net periodic benefit costs except service cost, which is reported in various operating expense lines. Refer to Note 12 for additional details on the components of pension and postretirement net periodic benefit costs.

NOTE 6. Supplemental Balance Sheet Information

Accounts payable (included as a separate line item in the Consolidated Balance Sheet) includes drafts payable on demand of \$74 million at December 31, 2017, and \$88 million at December 31, 2016. Accumulated depreciation for capital leases totaled \$48 million and \$89 million as of December 31, 2017, and 2016, respectively. Additional supplemental balance sheet information is provided in the table that follows.

(Millions)	2017	2016
Other current assets		
Derivative assets-current	\$ 37	\$ 148
Insurance related (receivables, prepaid expenses and other)	71	109
Other	158	193
Total other current assets	\$ 266	\$ 450
Property, plant and equipment - at cost		
Land	\$ 348	\$ 341
Buildings and leasehold improvements	7,681	7,252
Machinery and equipment	15,907	14,935
Construction in progress	843	809
Capital leases	135	162
Gross property, plant and equipment	24,914	23,499
Accumulated depreciation	(16,048)	(14,983)
Property, plant and equipment - net	\$ 8,866	\$ 8,516
Other assets		
Deferred income taxes	\$ 511	\$ 422
Prepaid pension and post retirement	237	52
Insurance related receivables and other	63	68
Cash surrender value of life insurance policies	241	236
Equity method investments	70	60
Cost method and other investments	80	68
Other	193	272
Total other assets	\$ 1,395	\$ 1,178
Other current liabilities		
Accrued rebates	\$ 516	\$ 458
Deferred income	513	551
Derivative liabilities	135	92
Employee benefits and withholdings	208	155
Contingent liability claims and other	179	201
Property, sales-related and other taxes	277	248
Pension and postretirement benefits	69	66
Other	812	701
Total other current liabilities	\$ 2,709	\$ 2,472
Other liabilities		
Long term income taxes payable	\$ 1,287	\$ 244
Employee benefits	319	256
Contingent liability claims and other	727	719
Capital lease obligations	60	45
Deferred income	37	15
Deferred income taxes	235	145
Other	297	224
Total other liabilities	\$ 2,962	\$ 1,648

NOTE 7. Supplemental Equity and Comprehensive Income Information

Common stock (\$.01 par value per share) of 3.0 billion shares is authorized, with 944,033,056 shares issued. Preferred stock, without par value, of 10 million shares is authorized but unissued.

Cash dividends declared and paid totaled \$1.175 and \$1.11 per share for each quarter in 2017 and 2016, respectively, which resulted in total year declared dividends of \$4.70 and \$4.44 per share, respectively. In 2015, 3M's Board of Directors declared a second, third, and fourth quarter dividend of \$1.025 per share, which resulted in total year 2015 declared dividends of \$3.075 per share. In December 2014, 3M's Board of Directors declared a first quarter 2015 dividend of \$1.025 per share (paid in March 2015).

Changes in Accumulated Other Comprehensive Income (Loss) Attributable to 3M by Component

(Millions)	Cumulative Translation Adjustment	Defined Benefit Pension and Postretirement Plans Adjustment	Cash Flow Hedging Instruments, Unrealized Gain (Loss)	Total Accumulated Other Comprehensive Income (Loss)
Balance at December 31, 2014, net of tax:	\$ (1,095)	\$ (5,293)	\$ 99	\$ (6,289)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	(447)	367	212	132
Amounts reclassified out	—	537	(174)	363
Total other comprehensive income (loss), before tax	(447)	904	38	495
Tax effect	(137)	(415)	(13)	(565)
Total other comprehensive income (loss), net of tax	(584)	489	25	(70)
Balance at December 31, 2015, net of tax:	\$ (1,679)	\$ (4,804)	\$ 124	\$ (6,359)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	(244)	(1,122)	57	(1,309)
Amounts reclassified out	—	421	(109)	312
Total other comprehensive income (loss), before tax	(244)	(701)	(52)	(997)
Tax effect	(85)	177	19	111
Total other comprehensive income (loss), net of tax	(329)	(524)	(33)	(886)
Balance at December 31, 2016, net of tax:	\$ (2,008)	\$ (5,328)	\$ 91	\$ (7,245)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	91	(600)	(311)	(820)
Amounts reclassified out	—	483	(7)	476
Total other comprehensive income (loss), before tax	91	(117)	(318)	(344)
Tax effect	279	169	115	563
Total other comprehensive income (loss), net of tax	370	52	(203)	219
Balance at December 31, 2017, net of tax:	\$ (1,638)	\$ (5,276)	\$ (112)	\$ (7,026)

Income taxes are not provided for foreign translation relating to permanent investments in international subsidiaries, but tax effects within cumulative translation does include impacts from items such as net investment hedge transactions. Reclassification adjustments are made to avoid double counting in comprehensive income items that are also recorded as part of net income.

Reclassifications out of Accumulated Other Comprehensive Income Attributable to 3M

Details about Accumulated Other Comprehensive Income Components (Millions)	Amounts Reclassified from Accumulated Other Comprehensive Income			Location on Income Statement
	Year ended December 31,			
	2017	2016	2015	
Gains (losses) associated with defined benefit pension and postretirement plans amortization				
Transition asset	\$ —	\$ 1	\$ 1	See Note 12
Prior service benefit	89	92	79	See Note 12
Net actuarial loss	(570)	(506)	(626)	See Note 12
Curtailments/Settlements	(2)	(8)	9	See Note 12
Total before tax	(483)	(421)	(537)	
Tax effect	116	148	176	Provision for income taxes
Net of tax	\$ (367)	\$ (273)	\$ (361)	
Cash flow hedging instruments gains (losses)				
Foreign currency forward/option contracts	\$ 8	\$ 110	\$ 178	Cost of sales
Commodity price swap contracts	—	—	(2)	Cost of sales
Interest rate swap contracts	(1)	(1)	(2)	Interest expense
Total before tax	7	109	174	
Tax effect	(3)	(39)	(63)	Provision for income taxes
Net of tax	\$ 4	\$ 70	\$ 111	
Total reclassifications for the period, net of tax	\$ (363)	\$ (203)	\$ (250)	

NOTE 8. Supplemental Cash Flow Information

(Millions)	2017	2016	2015
Cash income tax payments, net of refunds	\$ 1,604	\$ 1,888	\$ 2,331
Cash interest payments	214	194	134

Cash interest payments include interest paid on debt and capital lease balances, including net interest payments/receipts related to accreted debt discounts/premiums, payment of debt issue costs, as well as net interest payments/receipts associated with interest rate swap contracts. Cash interest payments exclude the cash paid for early debt extinguishment costs. Additional details are described in Note 11.

Individual amounts in the Consolidated Statement of Cash Flows exclude the impacts of acquisitions, divestitures and exchange rate impacts, which are presented separately.

Transactions related to investing and financing activities with significant non-cash components are as follows:

- 3M sold and leased-back, under a capital lease, certain recently constructed machinery and equipment in return for municipal bonds with the City of Nevada, Missouri during 2017 and 2016 valued at approximately \$13 million and \$12 million, respectively, as of the transaction date.

In addition, as discussed in Note 7, in the fourth quarter of 2014, 3M's Board of Directors declared a first quarter 2015 dividend of \$1.025 per share (paid in March 2015).

NOTE 9. Income Taxes

Income Before Income Taxes

(Millions)	2017	2016	2015
United States	\$ 4,149	\$ 4,366	\$ 4,399
International	3,399	2,687	2,424
Total	\$ 7,548	\$ 7,053	\$ 6,823

Provision for Income Taxes

(Millions)	2017	2016	2015
Currently payable			
Federal	\$ 1,022	\$ 1,192	\$ 1,338
State	59	75	101
International	722	733	566
Tax Cuts and Jobs Act (TCJA) non-current transition tax provision	623	—	—
Deferred			
Federal	162	(3)	(55)
State	15	9	6
International	76	(11)	26
Total	\$ 2,679	\$ 1,995	\$ 1,982

Components of Deferred Tax Assets and Liabilities

(Millions)	2017	2016
Deferred tax assets:		
Accruals not currently deductible		
Employee benefit costs	\$ 178	\$ 195
Product and other claims	204	326
Miscellaneous accruals	98	92
Pension costs	760	1,217
Stock-based compensation	210	302
Net operating/capital loss carryforwards	89	93
Foreign tax credits	32	22
Currency translation	59	—
Inventory	51	53
Gross deferred tax assets	1,681	2,300
Valuation allowance	(81)	(47)
Total deferred tax assets	\$ 1,600	\$ 2,253
Deferred tax liabilities:		
Product and other insurance receivables	\$ (6)	\$ (27)
Accelerated depreciation	(447)	(730)
Intangible amortization	(784)	(903)
Currency translation	—	(276)
Other	(87)	(40)
Total deferred tax liabilities	\$ (1,324)	\$ (1,976)
Net deferred tax assets	\$ 276	\$ 277

The net deferred tax assets are included as components of Other Assets and Other Liabilities within the Consolidated Balance Sheet. See Note 6 “Supplemental Balance Sheet Information” for further details.

As of December 31, 2017, the Company had tax effected operating losses, capital losses, and tax credit carryovers for federal (approximately \$7 million), state (approximately \$12 million), and international (approximately \$70 million), with all amounts net before valuation allowances. The federal tax attribute carryovers will expire after 15 to 20 years, the state after 5 to 10 years, and the international after one to three years or have an indefinite carryover period. The tax attributes being carried over arise as certain jurisdictions may have tax losses or may have inability to utilize certain losses without the same type of taxable income. As of December 31, 2017, the Company has provided \$81 million of valuation allowance against certain of these deferred tax assets based on management's determination that it is more-likely-than-not that the tax benefits related to these assets will not be realized.

Reconciliation of Effective Income Tax Rate

	2017	2016	2015
Statutory U.S. tax rate	35.0 %	35.0 %	35.0 %
State income taxes - net of federal benefit	0.8	0.9	1.1
International income taxes - net	(6.3)	(2.7)	(3.9)
U.S. TCJA - net impacts	10.1	—	—
U.S. research and development credit	(0.7)	(0.5)	(0.5)
Reserves for tax contingencies	2.2	0.2	(1.0)
Domestic Manufacturer's deduction	(1.8)	(1.8)	(1.8)
Employee share-based payments	(3.2)	(2.8)	(0.1)
All other - net	(0.6)	—	0.3
Effective worldwide tax rate	<u>35.5 %</u>	<u>28.3 %</u>	<u>29.1 %</u>

The effective tax rate for 2017 was 35.5 percent, compared to 28.3 percent in 2016, an increase of 7.2 percentage points, impacted by several factors. Primary factors that increased the Company's effective tax rate included the impacts due to the Tax Cuts and Jobs Act (TCJA) being enacted in 2017 (see further information below) and remeasurements and establishment of 3M's uncertain tax positions. Combined, these factors increased the Company's effective tax rate by 12.1 percentage points. The increase was partially offset by a 4.9 percentage point decrease, which related to international taxes that were impacted by increasing benefits from the Company's supply chain centers of expertise, changes to the geographic mix of income before taxes and prior year cash optimization actions, higher year-on-year excess tax benefit for employee share-based payment, increased benefits from the R&D tax credit, a reduction of state taxes, and other items.

The effective tax rate for 2016 was 28.3 percent, compared to 29.1 percent in 2015, a decrease of 0.8 percentage points, impacted by several factors. Primary factors that decreased the Company's effective tax rate included the recognition of excess tax benefits beginning in 2016 related to employee share-based payments (resulting from the adoption of ASU No. 2016-09, as discussed in Note 1) and a reduction in state taxes. Combined, these factors decreased the Company's effective tax rate by 3.2 percentage points. The decrease was partially offset by a 2.4 percentage point increase, which related to remeasurements of 3M's uncertain tax positions and international taxes that were impacted by changes to both the geographic mix of income before taxes and additional tax expense related to global cash optimization actions.

The TCJA was enacted in December 2017. Among other things, the TCJA reduces the U.S. federal corporate tax rate from 35 percent to 21 percent beginning in 2018, requires companies to pay a one-time transition tax on previously unremitted earnings of non-U.S. subsidiaries that were previously tax deferred and creates new taxes on certain foreign sourced earnings. The SEC staff issued Staff Accounting Bulletin (SAB) 118, which provides guidance on accounting for enactment effects of the TCJA. SAB 118 provides a measurement period of up to one year from the TCJA's enactment date for companies to complete their accounting under ASC 740. In accordance with SAB 118, to the extent that a company's accounting for certain income tax effects of the TCJA is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in its financial statements. If a company cannot determine a provisional estimate to be included in its financial statements, it should continue to apply ASC 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the TCJA.

In connection with 3M's initial analysis of the impact of the enactment of the TCJA, the Company recorded a net tax expense of \$762 million in the fourth quarter of 2017. For various reasons that are discussed more fully below, including

the issuance of additional technical and interpretive guidance, 3M has not completed its accounting for the income tax effects of certain elements of the TCJA. However, with respect to the following, 3M was able to make reasonable estimates of the TCJA's effects and, as such, recorded provisional amounts:

Transition tax: The transition tax is a tax on previously untaxed accumulated and current earnings and profits (E&P) of certain of the Company's non-U.S. subsidiaries. To determine the amount of the transition tax, 3M must determine, in addition to other factors, the amount of post-1986 E&P of the relevant subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. Further, the transition tax is based in part on the amount of those earnings held in cash and other specified assets. 3M was able to make a reasonable estimate of the transition tax and recorded a provisional obligation and additional income tax expense of \$745 million in the fourth quarter of 2017. However, the Company is continuing to gather additional information and will consider additional technical guidance to more precisely compute and account for the amount of the transition tax. This amount may change when 3M finalizes the calculation of post-1986 foreign E&P previously deferred from U.S. federal taxation and finalizes the amounts held in cash or other specified assets. The TCJA's transition tax is payable over eight years beginning in 2018. As of December 31, 2017, 3M reflected \$122 million and \$623 million in current accrued income taxes and long term income taxes payable, respectively.

Remeasurement of deferred tax assets/liabilities and other impacts: 3M remeasured certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, which is generally 21 percent under the TCJA. 3M is still analyzing certain aspects of the TCJA, considering additional technical guidance, and refining its calculations, which could potentially affect the measurement of these balances or potentially give rise to new deferred tax amounts. This includes the potential impacts of the global low-taxed income ("GILTI") provision within the TCJA on deferred tax assets/liabilities. 3M also is considering other impacts of the 2017 enactment of the TCJA including, but not limited to effects on the Company's indefinite reinvestment assertion. As discussed further below in this Note 9, 3M previously has not provided deferred taxes on unremitted earnings attributable to international companies that have been considered to be reinvested indefinitely. The full effects of underlying tax rates of the TCJA causes some reassessment of previous indefinite reinvestment assertions with respect to certain jurisdictions. While 3M was able to make a reasonable estimate of these impacts, it may be affected by other analyses related to the TCJA, including, but not limited to, the calculation of the transition tax on deferred foreign income. The provisional amount recorded in the fourth quarter of 2017 related to deferred tax assets/liabilities and other impacts was a net additional income tax expense of \$17 million.

3M has not completed its full analysis with respect to the GILTI provision within the TCJA and is not yet able to make reasonable estimates of its related effects. Therefore, no provisional adjustments relative to GILTI were recorded. Currently, 3M has not yet elected a policy as to whether it will recognize deferred taxes for basis differences expected to reverse as GILTI or whether 3M will account for GILTI as period costs if and when incurred. 3M is not aware of other elements of the TCJA for which the Company was not yet able to make reasonable estimates of the enactment impact and for which it would continue accounting for them in accordance with ASC 740 on the basis of the tax laws in effect before the TCJA.

The Company files income tax returns in the U.S. federal jurisdiction, and various states and foreign jurisdictions. With few exceptions, the Company is no longer subject to U.S. federal, state and local, or non-U.S. income tax examinations by tax authorities for years before 2005.

The IRS has completed its field examination of the Company's U.S. federal income tax returns for the years 2005 through 2014. The Company protested certain IRS positions within these tax years and entered into the administrative appeals process with the IRS. In December 2012, the Company received a statutory notice of deficiency for the 2006 year. The Company filed a petition in Tax Court in the first quarter of 2013 relating to the 2006 tax year.

Currently, the Company is under examination by the IRS for its U.S. federal income tax returns for the years 2015, 2016, and 2017. It is anticipated that the IRS will complete its examination of the Company for 2015 by the end of the third quarter of 2018, for 2016 by the end of the first quarter of 2018, and for 2017 by the end of the first quarter of 2019. As of December 31, 2017, the IRS has not proposed any significant adjustments to the Company's tax positions for which the Company is not adequately reserved.

Payments relating to other proposed assessments arising from the 2005 through 2017 examinations may not be made until a final agreement is reached between the Company and the IRS on such assessments or upon a final resolution resulting from the administrative appeals process or judicial action. In addition to the U.S. federal examination, there is also audit activity in several U.S. state and foreign jurisdictions.

3M anticipates changes to the Company's uncertain tax positions due to the closing and resolution of audit issues for various audit years mentioned above and closure of statutes. Currently, the Company is estimating a decrease in unrecognized tax benefits during the next 12 months as a result of anticipated resolutions of audit issues.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits (UTB) is as follows:

Federal, State and Foreign Tax

(Millions)	2017	2016	2015
Gross UTB Balance at January 1	\$ 319	\$ 381	\$ 583
Additions based on tax positions related to the current year	119	67	77
Additions for tax positions of prior years	149	43	140
Reductions for tax positions of prior years	(38)	(66)	(399)
Settlements	(3)	(95)	(4)
Reductions due to lapse of applicable statute of limitations	(16)	(11)	(16)
Gross UTB Balance at December 31	\$ 530	\$ 319	\$ 381
Net UTB impacting the effective tax rate at December 31	\$ 526	\$ 333	\$ 369

The total amount of UTB, if recognized, would affect the effective tax rate by \$526 million as of December 31, 2017, \$333 million as of December 31, 2016, and \$369 million as of December 31, 2015. The ending net UTB results from adjusting the gross balance for items such as Federal, State, and non-U.S. deferred items, interest and penalties, and deductible taxes. The net UTB is included as components of Other Assets, Accrued Income Taxes, and Other Liabilities within the Consolidated Balance Sheet.

The Company recognizes interest and penalties accrued related to unrecognized tax benefits in tax expense. The Company recognized in the consolidated statement of income on a gross basis approximately \$20 million of expense, \$10 million of expense, and \$2 million of expense in 2017, 2016, and 2015, respectively. The amount of interest and penalties recognized may be an expense or benefit due to new or remeasured unrecognized tax benefit accruals. At December 31, 2017, and December 31, 2016, accrued interest and penalties in the consolidated balance sheet on a gross basis were \$68 million and \$52 million, respectively. Included in these interest and penalty amounts are interest and penalties related to tax positions for which the ultimate deductibility is highly certain but for which there is uncertainty about the timing of such deductibility. Because of the impact of deferred tax accounting, other than interest and penalties, the disallowance of the shorter deductibility period would not affect the annual effective tax rate but would accelerate the payment of cash to the taxing authority to an earlier period.

As a result of certain employment commitments and capital investments made by 3M, income from certain manufacturing activities in the following countries is subject to reduced tax rates or, in some cases, is exempt from tax for years through the following: Thailand (2018), China (2019), Korea (2019), Switzerland (2023), Singapore (2025), and Brazil (2073). The income tax benefits attributable to the tax status of these subsidiaries are estimated to be \$228 million (37 cents per diluted share) in 2017, \$142 million (23 cents per diluted share) in 2016, and \$114 million (18 cents per diluted share) in 2015.

The Company has not provided deferred taxes on unremitted earnings attributable to international companies that have been considered to be reinvested indefinitely. As noted above, the effects of the TCJA caused some reassessment of previous indefinite reinvestment assertions with respect to certain jurisdictions. While 3M was able to make a reasonable estimate of these impacts, it may be affected by other analyses related to the TCJA. The unremitted earnings relate to

ongoing operations and were approximately \$15 billion as of December 31, 2017. Because of the multiple avenues in which to repatriate the earnings to minimize tax cost, and because a large portion of these earnings are not liquid, it is not practical to determine the income tax liability that would be payable if such earnings were not reinvested indefinitely.

NOTE 10. Marketable Securities

The Company invests in asset-backed securities, certificates of deposit/time deposits, commercial paper, and other securities. The following is a summary of amounts recorded on the Consolidated Balance Sheet for marketable securities (current and non-current).

(Millions)	December 31, 2017	December 31, 2016
Corporate debt securities	\$ 14	\$ 10
Commercial paper	899	14
Certificates of deposit/time deposits	76	197
U.S. municipal securities	3	3
Asset-backed securities:		
Automobile loan related	16	31
Credit card related	68	18
Other	—	7
Asset-backed securities total	<u>84</u>	<u>56</u>
Current marketable securities	\$ 1,076	\$ 280
U.S. municipal securities	\$ 27	\$ 17
Non-current marketable securities	\$ 27	\$ 17
Total marketable securities	\$ 1,103	\$ 297

At December 31, 2017 and 2016, gross unrealized, gross realized, and net realized gains and/or losses (pre-tax) were not material.

The balance at December 31, 2017, for marketable securities by contractual maturity are shown below. Actual maturities may differ from contractual maturities because the issuers of the securities may have the right to prepay obligations without prepayment penalties.

(Millions)	December 31, 2017
Due in one year or less	\$ 1,071
Due after one year through five years	18
Due after five years through ten years	14
Total marketable securities	<u>\$ 1,103</u>

3M has a diversified marketable securities portfolio. Within this portfolio, asset-backed securities primarily include interests in automobile loans, credit cards and other asset-backed securities. 3M's investment policy allows investments in asset-backed securities with minimum credit ratings of Aa3 by Moody's Investors Service or AA- by Standard & Poor's or Fitch Ratings or DBRS. Asset-backed securities must be rated by at least two of the aforementioned rating agencies, one of which must be Moody's Investors Service or Standard & Poor's. At December 31, 2017, all asset-backed security investments were in compliance with this policy. Approximately 90 percent of all asset-backed security investments were rated AAA or A-1+ by Standard & Poor's and/or Aaa or P-1 by Moody's Investors Service and/or AAA or F1+ by Fitch Ratings. Interest rate risk and credit risk related to the underlying collateral may impact the value of investments in asset-backed securities, while factors such as general conditions in the overall credit market and the nature of the underlying collateral may affect the liquidity of investments in asset-backed securities. 3M does not

currently expect risk related to its holding in asset-backed securities to materially impact its financial condition or liquidity.

NOTE 11. Long-Term Debt and Short-Term Borrowings

The following debt tables reflect effective interest rates, which include the impact of interest rate swaps, as of December 31, 2017. If the debt was issued on a combined basis, the debt has been separated to show the impact of the fixed versus floating effective interest rates. Carrying value includes the impact of debt issuance costs and fair value hedging activity. Long-term debt and short-term borrowings as of December 31 consisted of the following:

Long-Term Debt

(Millions) Description / 2017 Principal Amount	Currency/ Fixed vs. Floating	Effective Interest Rate	Final Maturity Date	Carrying Value	
				2017	2016
Medium-term note (repaid in 2017)	USD Fixed	— %	—	\$ —	\$ 649
Medium-term note (500 million Euros)	Euro Floating	— %	2018	600	523
Medium-term note (\$450 million)	USD Floating	1.50 %	2018	448	448
Medium-term note (\$600 million)	USD Floating	1.63 %	2019	596	598
Medium-term note (\$25 million)	USD Fixed	1.74 %	2019	25	25
Medium-term note (650 million Euros)	Euro Floating	— %	2020	779	680
Medium-term note (\$300 million)	USD Floating	1.58 %	2020	296	297
Medium-term note (\$200 million)	USD Floating	1.49 %	2020	198	199
Eurobond (300 million Euros)	Euro Floating	— %	2021	378	336
Eurobond (300 million Euros)	Euro Fixed	1.97 %	2021	358	312
Medium-term note (\$600 million)	USD Fixed	1.63 %	2021	598	598
Medium-term note (500 million Euros)	Euro Fixed	0.45 %	2022	597	520
Medium-term note (\$600 million)	USD Fixed	2.17 %	2022	595	593
Medium-term note (600 million Euros)	Euro Fixed	1.14 %	2023	712	619
Medium-term note (\$650 million)	USD Fixed	2.26 %	2023	647	—
Medium-term note (\$550 million)	USD Fixed	3.04 %	2025	546	546
Medium-term note (750 million Euros)	Euro Fixed	1.71 %	2026	885	770
Medium-term note (\$650 million)	USD Fixed	2.25 %	2026	641	640
Medium-term note (\$850 million)	USD Fixed	2.95 %	2027	839	—
30-year debenture (\$220 million)	USD Fixed	6.01 %	2028	227	342
Medium-term note (500 million Euros)	Euro Fixed	1.90 %	2030	589	512
Medium-term note (500 million Euros)	Euro Fixed	1.54 %	2031	595	518
30-year bond (\$555 million)	USD Fixed	5.73 %	2037	550	743
Floating rate note (\$96 million)	USD Floating	1.29 %	2041	95	96
Medium-term note (\$325 million)	USD Fixed	4.05 %	2044	313	313
Floating rate note (\$55 million)	USD Floating	1.21 %	2044	54	54
Medium-term note (\$500 million)	USD Fixed	3.13 %	2046	473	473
Medium-term note (\$500 million)	USD Fixed	3.68 %	2047	491	—
Other borrowings	Various	1.26 %	2018-2040	73	74
Total long-term debt				\$ 13,198	\$ 11,478
Less: current portion of long-term debt				1,102	800
Long-term debt (excluding current portion)				\$ 12,096	\$ 10,678

Post-Swap Borrowing (Long-Term Debt, Including Current Portion)

(Millions)	2017		2016	
	Carrying Value	Effective Interest Rate	Carrying Value	Effective Interest Rate
Fixed-rate debt	\$ 9,681	2.45 %	\$ 8,372	2.42 %
Floating-rate debt	3,517	0.76 %	3,106	0.48 %
Total long-term debt, including current portion	\$ 13,198		\$ 11,478	

Short-Term Borrowings and Current Portion of Long-Term Debt

(Millions)	Effective Interest Rate	Carrying Value	
		2017	2016
Current portion of long-term debt	0.67 %	\$ 1,102	\$ 800
U.S. dollar commercial paper	1.50 %	745	—
Other borrowings	5.35 %	6	172
Total short-term borrowings and current portion of long-term debt		\$ 1,853	\$ 972

Other short-term borrowings primarily consisted of bank borrowings by international subsidiaries. In 2016, these were primarily related to Japan and Korea.

Future Maturities of Long-term Debt

Maturities of long-term debt in the table below are net of the unaccreted debt issue costs such that total maturities equal the carrying value of long-term debt as of December 31, 2017. The maturities of long-term debt for the periods subsequent to December 31, 2017 are as follows (in millions):

2018	2019	2020	2021	2022	After 2022	Total
\$ 1,102	\$ 692	\$ 1,368	\$ 1,333	\$ 1,191	\$ 7,512	\$ 13,198

Long-term debt payments due in 2018, 2019, and 2020 include floating rate notes totaling \$54 million (classified as current portion of long-term debt), \$71 million (included in other borrowings in the long-term debt table), and \$95 million (included within the long-term debt table), respectively, as a result of put provisions associated with these debt instruments.

Credit Facilities

In March 2016, 3M amended and restated its existing \$2.25 billion five-year revolving credit facility expiring in August 2019 to a \$3.75 billion five-year revolving credit facility expiring in March 2021. This credit agreement includes a provision under which 3M may request an increase of up to \$1.25 billion (at lender's discretion), bringing the total facility up to \$5.0 billion. This revolving credit facility was undrawn at December 31, 2017. Under the \$3.75 billion credit agreement, the Company is required to maintain its EBITDA to Interest Ratio as of the end of each fiscal quarter at not less than 3.0 to 1. This is calculated (as defined in the agreement) as the ratio of consolidated total EBITDA for the four consecutive quarters then ended to total interest expense on all funded debt for the same period. At December 31, 2017, this ratio was approximately 29 to 1. Debt covenants do not restrict the payment of dividends.

Other Credit Facilities

Apart from the committed revolving facility, an additional \$288 million in stand-alone letters of credit and bank guarantees were also issued and outstanding at December 31, 2017. These instruments are utilized in connection with normal business activities.

Long-Term Debt Issuances

The principal amounts, interest rates and maturity dates of individual long-term debt issuances can be found in the long-term debt table found at the beginning of this note.

In October 2017, 3M issued \$650 million aggregate principal amount of 5.5-year fixed rate medium-term notes due 2023 with a coupon rate of 2.25%, \$850 million aggregate principal amount of 10-year fixed rate medium-term notes due 2027 with a coupon rate of 2.875%, and \$500 million aggregate principal amount of 30-year fixed rate medium-term notes due 2047 with a coupon rate of 3.625%.

In May 2016, 3M issued 1 billion Euros aggregate principal amount of medium-term notes. In September 2016, 3M issued \$1.75 billion aggregate principal amount of medium-term notes.

In May 2015, 3M issued 1.750 billion Euros aggregate principal amount of medium-term notes. In August 2015, 3M issued \$1.500 billion aggregate principal amount of medium-term notes. Upon debt issuance, the Company entered into two interest rate swaps as fair value hedges of a portion of the fixed interest rate medium-term note obligation. The first converted a \$450 million three-year fixed rate note, and the second converted \$300 million of a five-year fixed rate note included in this issuance to an interest rate based on a floating three-month LIBOR index.

Long-Term Debt Maturities and Extinguishments

In June 2017, 3M repaid \$650 million aggregate principal amount of fixed rate medium-term notes that matured.

In October 2017, 3M, via cash tender offers, repurchased \$305 million aggregate principal amount of its outstanding notes. This included \$110 million of its \$330 million principal amount of 6.375% notes due 2028 and \$195 million of its \$750 million principal amount of 5.70% notes due 2037. The Company recorded an early debt extinguishment charge of approximately \$96 million in the fourth quarter of 2017 within interest expense, the cash outflow for which is recorded within other financing activities on the statement of cash flows. This charge reflected the differential between the carrying value and the amount paid to acquire the tendered notes and related expenses.

In September 2016, 3M repaid \$1 billion aggregate principal amount of medium-term notes.

Floating Rate Notes

At various times, 3M has issued floating rate notes containing put provisions. 3M would be required to repurchase these securities at various prices ranging from 99 percent to 100 percent of par value according to the reduction schedules for each security. In December 2004, 3M issued a forty-year \$60 million floating rate note, with a rate based on a floating LIBOR index. Under the terms of this floating rate note due in 2044, holders have an annual put feature at 100 percent of par value from 2014 and every anniversary thereafter until final maturity. Under the terms of the floating rate notes due in 2027, 2040 and 2041, holders have put options that commence ten years from the date of issuance and each third anniversary thereafter until final maturity at prices ranging from 99 percent to 100 percent of par value. For the periods presented, 3M was required to repurchase an immaterial amount of principal on the aforementioned floating rate notes.

NOTE 12. Pension and Postretirement Benefit Plans

3M has company-sponsored retirement plans covering substantially all U.S. employees and many employees outside the United States. In total, 3M has over 75 defined benefit plans in 27 countries. Pension benefits associated with these plans generally are based on each participant's years of service, compensation, and age at retirement or termination. The primary U.S. defined-benefit pension plan was closed to new participants effective January 1, 2009. The Company also provides certain postretirement health care and life insurance benefits for its U.S. employees who reach retirement age while employed by the Company and were employed by the Company prior to January 1, 2016. Most international employees and retirees are covered by government health care programs. The cost of company-provided postretirement health care plans for international employees is not material and is combined with U.S. amounts in the tables that follow.

The Company has made deposits for its defined benefit plans with independent trustees. Trust funds and deposits with insurance companies are maintained to provide pension benefits to plan participants and their beneficiaries. There are no plan assets in the non-qualified plan due to its nature. For its U.S. postretirement health care and life insurance benefit plans, the Company has set aside amounts at least equal to annual benefit payments with an independent trustee.

3M's primary U.S. qualified defined benefit plan does not have a mandatory cash contribution because the Company has a significant credit balance from previous discretionary contributions that can be applied to any Pension Protection Act funding requirements.

The Company also sponsors employee savings plans under Section 401(k) of the Internal Revenue Code. These plans are offered to substantially all regular U.S. employees. For eligible employees hired prior to January 1, 2009, employee 401(k) contributions of up to 5% of eligible compensation matched in cash at rates of 45% or 60%, depending on the plan in which the employee participates. Employees hired on or after January 1, 2009, receive a cash match of 100% for employee 401(k) contributions of up to 5% of eligible compensation and receive an employer retirement income account cash contribution of 3% of the participant's total eligible compensation. All contributions are invested in a number of investment funds pursuant to the employees' elections. Employer contributions to the U.S. defined contribution plans were \$159 million, \$139 million and \$165 million for 2017, 2016 and 2015, respectively. 3M subsidiaries in various international countries also participate in defined contribution plans. Employer contributions to the international defined contribution plans were \$88 million, \$87 million and \$77 million for 2017, 2016 and 2015, respectively.

As a result of changes made to its U.S. postretirement health care benefit plans in 2010, the Company has transitioned all current and future retirees to a savings account benefits-based plan. These changes became effective beginning January 1, 2013, for all Medicare eligible retirees and their Medicare eligible dependents and became effective beginning January 1, 2016, for all non-Medicare eligible retirees and their eligible dependents. In August 2015, 3M modified the 3M Retiree Welfare Benefit Plan postretirement medical benefit reducing the future benefit for participants not retired as of January 1, 2016. For participants retiring after January 1, 2016, the Retiree Medical Savings Account (RMSA) is no longer credited with interest and the indexation on both the RMSA and the Medicare Health Reimbursement Arrangement is reduced from 3 percent to 1.5 percent per year (for those employees who are eligible for these accounts). Also effective January 1, 2016, 3M no longer offers 3M Retiree Health Care Accounts to new hires.

3M was informed in 2009, that the general partners of WG Trading Company, in which 3M's benefit plans hold limited partnership interests, are the subject of a criminal investigation as well as civil proceedings by the SEC and CFTC (Commodity Futures Trading Commission). In March 2011, over the objections of 3M and six other limited partners of WG Trading Company, the district court judge ruled in favor of the court appointed receiver's proposed distribution plan (and in April 2013, the United States Court of Appeals for the Second Circuit affirmed the district court's ruling). The benefit plan trustee holdings of WG Trading Company interests were adjusted to reflect the decreased estimated fair market value, inclusive of estimated insurance proceeds, as of the annual measurement dates. In the first quarter of 2014, 3M and certain 3M benefit plans filed a lawsuit that was removed by the insurers to the U.S. District Court for the District of Minnesota against five insurers seeking insurance coverage for the WG Trading Company claim. In September 2015, the court ruled in favor of the defendant insurance companies on a motion for summary judgment and dismissed the lawsuit. In October 2015, 3M and the 3M benefit plans filed a notice of appeal to the United States Court of Appeals for the Eighth Circuit. In May 2017, the appellate court affirmed the lower court's decision. The decision reduced U.S. pension and postretirement plan assets by \$73 million at the December 31, 2017 measurement date and did not have a material adverse effect on the consolidated financial position of the Company.

As part of a diversified investment strategy, the U.S. pension and postretirement benefit plans made investments in the natural gas fired power generation industry during the period 2011 through 2013. In April 2017, one of these entities, Panda Temple Power, LLC, filed for Chapter 11 bankruptcy protection in the U.S. Bankruptcy Court for the District of Delaware. This investment loss represented less than one percent of the fair value of the U.S. pension and postretirement plans' assets and was reflected in the fair value measurement as of December 31, 2017.

The following tables include a reconciliation of the beginning and ending balances of the benefit obligation and the fair value of plan assets as well as a summary of the related amounts recognized in the Company's consolidated balance sheet as of December 31 of the respective years. 3M also has certain non-qualified unfunded pension and postretirement

benefit plans, inclusive of plans related to supplement/excess benefits for employees impacted by particular relocations and other matters, that individually and in the aggregate are not significant and which are not included in the tables that follow. The obligations for these plans are included within other liabilities in the Company's consolidated balance sheet and aggregated less than \$40 million as of December 31, 2017 and 2016.

(Millions)	Qualified and Non-qualified Pension Benefits				Postretirement Benefits	
	United States		International		2017	2016
	2017	2016	2017	2016		
Change in benefit obligation						
Benefit obligation at beginning of year	\$ 16,202	\$ 15,856	\$ 6,625	\$ 6,322	\$ 2,259	\$ 2,216
Acquisitions/Transfers	—	—	3	(5)	—	—
Service cost	268	259	142	133	52	54
Interest cost	565	575	157	171	80	79
Participant contributions	—	—	8	8	—	—
Foreign exchange rate changes	—	—	667	(472)	3	7
Plan amendments	—	5	6	(4)	(6)	—
Actuarial (gain) loss	1,263	427	170	724	127	7
Benefit payments	(936)	(919)	(276)	(245)	(105)	(104)
Settlements, curtailments, special termination benefits and other	(2)	(1)	—	(7)	—	—
Benefit obligation at end of year	\$ 17,360	\$ 16,202	\$ 7,502	\$ 6,625	\$ 2,410	\$ 2,259
Change in plan assets						
Fair value of plan assets at beginning of year	\$ 14,081	\$ 13,966	\$ 5,617	\$ 5,669	\$ 1,356	\$ 1,367
Acquisitions/Transfers	—	—	2	—	—	—
Actual return on plan assets	1,693	779	714	512	143	90
Company contributions	852	259	112	121	3	3
Participant contributions	—	—	8	8	—	—
Foreign exchange rate changes	—	—	560	(444)	—	—
Benefit payments	(936)	(919)	(276)	(245)	(105)	(104)
Settlements, curtailments, special termination benefits and other	(4)	(4)	—	(4)	—	—
Fair value of plan assets at end of year	\$ 15,686	\$ 14,081	\$ 6,737	\$ 5,617	\$ 1,397	\$ 1,356
Funded status at end of year	\$ (1,674)	\$ (2,121)	\$ (765)	\$ (1,008)	\$ (1,013)	\$ (903)

(Millions)	Qualified and Non-qualified Pension Benefits				Postretirement Benefits	
	United States		International			
	2017	2016	2017	2016	2017	2016
Amounts recognized in the Consolidated Balance Sheet as of Dec. 31,						
Non-current assets	\$ 4	\$ 4	\$ 233	\$ 48	\$ —	\$ —
Accrued benefit cost						
Current liabilities	(53)	(52)	(12)	(10)	(4)	(4)
Non-current liabilities	(1,625)	(2,073)	(986)	(1,046)	(1,009)	(899)
Ending balance	\$ (1,674)	\$ (2,121)	\$ (765)	\$ (1,008)	\$ (1,013)	\$ (903)

(Millions)	Qualified and Non-qualified Pension Benefits				Postretirement Benefits	
	United States		International			
	2017	2016	2017	2016	2017	2016
Amounts recognized in accumulated other comprehensive income as of Dec. 31,						
Net transition obligation (asset)	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Net actuarial loss (gain)	5,921	5,704	1,720	1,933	774	761
Prior service cost (credit)	(175)	(198)	(40)	(56)	(163)	(214)
Ending balance	\$ 5,746	\$ 5,506	\$ 1,680	\$ 1,877	\$ 611	\$ 547

The balance of amounts recognized for international plans in accumulated other comprehensive income as of December 31 in the preceding table are presented based on the foreign currency exchange rate on that date.

The pension accumulated benefit obligation represents the actuarial present value of benefits based on employee service and compensation as of the measurement date and does not include an assumption about future compensation levels. The accumulated benefit obligation of the U.S. pension plans was \$16.270 billion and \$15.149 billion at December 31, 2017 and 2016, respectively. The accumulated benefit obligation of the international pension plans was \$6.870 billion and \$6.058 billion at December 31, 2017 and 2016, respectively.

The following amounts relate to pension plans with accumulated benefit obligations in excess of plan assets as of December 31:

(Millions)	Qualified and Non-qualified Pension Plans			
	United States		International	
	2017	2016	2017	2016
Projected benefit obligation	\$ 17,350	\$ 16,202	\$ 2,687	\$ 2,590
Accumulated benefit obligation	16,260	15,149	2,449	2,351
Fair value of plan assets	15,671	14,081	1,731	1,635

Components of net periodic cost and other amounts recognized in other comprehensive income

The service cost component of defined benefit net periodic benefit cost is recorded in cost of sales, selling, general and administrative expenses, and research, development and related expenses. As discussed in Note 5, the other components of net periodic benefit cost are reflected in other expense (income), net. Components of net periodic benefit cost and other supplemental information for the years ended December 31 follow:

(Millions)	Qualified and Non-qualified Pension Benefits						Postretirement Benefits		
	United States			International					
	2017	2016	2015	2017	2016	2015	2017	2016	2015
Net periodic benefit cost (benefit)									
Service cost	\$ 268	\$ 259	\$ 293	\$ 142	\$ 133	\$ 154	\$ 52	\$ 54	\$ 75
Interest cost	565	575	655	157	171	206	80	79	98
Expected return on plan assets	(1,035)	(1,043)	(1,069)	(292)	(309)	(308)	(86)	(90)	(91)
Amortization of transition asset	—	—	—	—	(1)	(1)	—	—	—
Amortization of prior service benefit	(23)	(24)	(24)	(13)	(13)	(13)	(53)	(55)	(42)
Amortization of net actuarial loss	388	354	409	126	91	144	56	61	73
Settlements, curtailments, special termination benefits and other	2	4	2	4	4	(6)	(4)	—	1
Net periodic benefit cost (benefit) after settlements, curtailments, special termination benefits and other	\$ 165	\$ 125	\$ 266	\$ 124	\$ 76	\$ 176	\$ 45	\$ 49	\$ 114
Other changes in plan assets and benefit obligations recognized in other comprehensive (income) loss									
Amortization of transition asset	—	—	—	—	1	1	—	—	—
Prior service cost (benefit)	—	5	—	6	(5)	10	(1)	—	(212)
Amortization of prior service benefit	23	24	24	13	13	13	53	55	42
Net actuarial (gain) loss	605	692	312	(248)	512	(270)	69	8	(23)
Amortization of net actuarial loss	(388)	(354)	(409)	(126)	(91)	(144)	(56)	(61)	(73)
Foreign currency	—	—	—	167	(93)	(174)	—	—	(1)
Total recognized in other comprehensive (income) loss	\$ 240	\$ 367	\$ (73)	\$ (188)	\$ 337	\$ (564)	\$ 65	\$ 2	\$ (267)
Total recognized in net periodic benefit cost (benefit) and other comprehensive (income) loss	\$ 405	\$ 492	\$ 193	\$ (64)	\$ 413	\$ (388)	\$ 110	\$ 51	\$ (153)

Amounts expected to be amortized from accumulated other comprehensive income into net periodic benefit costs over the next fiscal year

(Millions)	Qualified and Non-qualified Pension Benefits		Postretirement Benefits
	United States	International	
Amortization of transition (asset) obligation	\$ —	\$ —	\$ —
Amortization of prior service cost (benefit)	(23)	(13)	(40)
Amortization of net actuarial (gain) loss	503	116	62
Total amortization expected over the next fiscal year	\$ 480	\$ 103	\$ 22

The Company primarily amortizes amounts recognized as prior service cost (benefit) over the average future service period of active employees at the date of the amendment.

Weighted-average assumptions used to determine benefit obligations as of December 31

	Qualified and Non-qualified Pension Benefits						Postretirement Benefits		
	United States			International					
	2017	2016	2015	2017	2016	2015	2017	2016	2015
Discount rate	3.68 %	4.21 %	4.47 %	2.41 %	2.54 %	3.12 %	3.79 %	4.26 %	4.48 %
Compensation rate increase	4.10 %	4.10 %	4.10 %	2.89 %	2.90 %	2.90 %	N/A	N/A	N/A

Weighted-average assumptions used to determine net cost for years ended December 31

	Qualified and Non-qualified Pension Benefits						Postretirement Benefits		
	United States			International					
	2017	2016	2015	2017	2016	2015	2017	2016	2015
Discount rate - service cost	4.42 %	4.70 %	4.10 %	2.32 %	2.84 %	3.11 %	4.50 %	4.70 %	4.07 %
Discount rate - interest cost	3.61 %	3.73 %	4.10 %	2.25 %	2.72 %	3.11 %	3.80 %	3.80 %	4.07 %
Expected return on assets	7.25 %	7.50 %	7.75 %	5.16 %	5.77 %	5.90 %	6.48 %	6.91 %	6.91 %
Compensation rate increase	4.10 %	4.10 %	4.10 %	2.90 %	2.90 %	3.33 %	N/A	N/A	N/A

The Company provides eligible retirees in the U.S. postretirement health care benefit plans to a savings account benefits-based plan. The contributions provided by the Company to the health savings accounts increase 3 percent per year for employees who retired prior to January 1, 2016 and increase 1.5 percent for employees who retire on or after January 1, 2016. Therefore, the Company no longer has material exposure to health care cost inflation.

The Company determines the discount rate used to measure plan liabilities as of the December 31 measurement date for the pension and postretirement benefit plans, which is also the date used for the related annual measurement assumptions. The discount rate reflects the current rate at which the associated liabilities could be effectively settled at the end of the year. The Company sets its rate to reflect the yield of a portfolio of high quality, fixed-income debt instruments that would produce cash flows sufficient in timing and amount to settle projected future benefits. Using this methodology, the Company determined a discount rate of 3.68% for pension and 3.79% for postretirement benefits to be appropriate for its U.S. plans as of December 31, 2017, which is a decrease of 0.53 percentage points and 0.47 percentage points, respectively, from the rates used as of December 31, 2016. For the international pension and postretirement plans the discount rates also reflect the current rate at which the associated liabilities could be effectively settled at the end of the year. If the country has a deep market in corporate bonds the Company matches the expected cash flows from the plan either to a portfolio of bonds that generate sufficient cash flow or a notional yield curve generated from available bond information. In countries that do not have a deep market in corporate bonds, government bonds are considered with a risk premium to approximate corporate bond yields.

Beginning in 2016, 3M changed the method used to estimate the service and interest cost components of the net periodic pension and other postretirement benefit costs. The new method measures service cost and interest cost separately using the spot yield curve approach applied to each corresponding obligation. Service costs are determined based on duration-specific spot rates applied to the service cost cash flows. The interest cost calculation is determined by applying duration-specific spot rates to the year-by-year projected benefit payments. The spot yield curve approach does not affect the measurement of the total benefit obligations as the change in service and interest costs offset in the actuarial gains and losses recorded in other comprehensive income. The Company changed to the new method to provide a more precise measure of service and interest costs by improving the correlation between the projected benefit cash flows and the discrete spot yield curve rates. The Company accounted for this change as a change in estimate prospectively beginning in the first quarter of 2016. As a result of the change to the spot yield curve approach, 2016 annual defined benefit pension and postretirement net periodic benefit cost decreased approximately \$180 million.

For the primary U.S. qualified pension plan, the Company's assumption for the expected return on plan assets was 7.25% in 2017. Projected returns are based primarily on broad, publicly traded equity and fixed-income indices and forward-looking estimates of active portfolio and investment management. As of December 31, 2017, the Company's 2018 expected long-term rate of return on U.S. plan assets is 7.25%, consistent with 2017. The expected return

assumption is based on the strategic asset allocation of the plan, long term capital market return expectations and expected performance from active investment management. The 2017 expected long-term rate of return is based on an asset allocation assumption of 25% global equities, 16% private equities, 41% fixed-income securities, and 18% absolute return investments independent of traditional performance benchmarks, along with positive returns from active investment management. The actual net rate of return on plan assets in 2017 was 12.4%. In 2016 the plan earned a rate of return of 5.8% and in 2015 earned a return of 0.7%. The average annual actual return on the plan assets over the past 10 and 25 years has been 7.0% and 9.4%, respectively. Return on assets assumptions for international pension and other post-retirement benefit plans are calculated on a plan-by-plan basis using plan asset allocations and expected long-term rate of return assumptions.

As of December 31, 2014, the Company converted to the “RP 2014 Mortality Tables” and updated the mortality improvement scale it used for calculating the year-end 2014 U.S. defined benefit pension annuitant and postretirement obligations and 2015 expense. The impact of this change increased the year-end 2014 U.S. pension projected benefit obligation (PBO) by approximately \$820 million and the U.S. accumulated postretirement benefit obligation by approximately \$100 million. As of December 31, 2016, the Company updated the mortality improvement scale to Scale MP-2016, which was released by the Society of Actuaries in October 2016. The impact of this change decreased the year-end 2016 U.S. pension PBO by approximately \$440 million and the U.S. accumulated postretirement benefit obligation by approximately \$60 million. As of December 31, 2017, the Company updated the mortality improvement scale to Scale MP-2017. The update resulted in a small decrease to the U.S. pension PBO and U.S. accumulated postretirement benefit obligations.

During 2017, the Company contributed \$964 million to its U.S. and international pension plans and \$3 million to its postretirement plans. During 2016, the Company contributed \$380 million to its U.S. and international pension plans and \$3 million to its postretirement plans. In 2018, the Company expects to contribute an amount in the range of \$300 million to \$500 million of cash to its U.S. and international retirement plans. The Company does not have a required minimum cash pension contribution obligation for its U.S. plans in 2018. Future contributions will depend on market conditions, interest rates and other factors.

Future Pension and Postretirement Benefit Payments

The following table provides the estimated pension and postretirement benefit payments that are payable from the plans to participants.

(Millions)	Qualified and Non-qualified Pension Benefits		Postretirement Benefits
	United States	International	
2018 Benefit Payments	\$ 1,074	\$ 237	\$ 139
2019 Benefit Payments	1,090	251	148
2020 Benefit Payments	1,102	260	157
2021 Benefit Payments	1,110	278	166
2022 Benefit Payments	1,126	285	174
Next five years	5,724	1,640	843

Plan Asset Management

3M's investment strategy for its pension and postretirement plans is to manage the funds on a going-concern basis. The primary goal of the trust funds is to meet the obligations as required. The secondary goal is to earn the highest rate of return possible, without jeopardizing its primary goal, and without subjecting the Company to an undue amount of contribution risk. Fund returns are used to help finance present and future obligations to the extent possible within actuarially determined funding limits and tax-determined asset limits, thus reducing the potential need for additional contributions from 3M. The investment strategy has used long duration cash bonds and derivative instruments to offset a significant portion of the interest rate sensitivity of U.S. pension liabilities.

Normally, 3M does not buy or sell any of its own securities as a direct investment for its pension and other postretirement benefit funds. However, due to external investment management of the funds, the plans may indirectly buy, sell or hold 3M securities. The aggregate amount of 3M securities are not considered to be material relative to the aggregate fund percentages.

The discussion that follows references the fair value measurements of certain assets in terms of levels 1, 2 and 3. See Note 14 for descriptions of these levels. While the company believes the valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

U.S. Pension Plans and Postretirement Benefit Plan Assets

In order to achieve the investment objectives in the U.S. pension plans and U.S. postretirement benefit plans, the investment policies include a target strategic asset allocation. The investment policies allow some tolerance around the target in recognition that market fluctuations and illiquidity of some investments may cause the allocation to a specific asset class to vary from the target allocation, potentially for long periods of time. Acceptable ranges have been designed to allow for deviation from strategic targets and to allow for the opportunity for tactical over- and under-weights. The portfolios will normally be rebalanced when the quarter-end asset allocation deviates from acceptable ranges. The allocation is reviewed regularly by the named fiduciary of the plans. Approximately 46% of the postretirement benefit plan assets are in a 401(h) account. The 401(h) account assets are in the same trust as the primary U.S. pension plan and invested with the same investment objectives as the primary U.S. pension plan.

The fair values of the assets held by the U.S. pension plans by asset class are as follows:

(Millions) Asset Class	Fair Value Measurements Using Inputs Considered as						Fair Value at	
	Level 1		Level 2		Level 3		Dec. 31,	
	2017	2016	2017	2016	2017	2016	2017	2016
Equities								
U.S. equities	\$ 1,568	\$ 1,522	\$ —	\$ —	\$ —	\$ —	\$ 1,568	\$ 1,522
Non-U.S. equities	1,527	1,179	—	—	—	—	1,527	1,179
Index and long/short equity funds*							422	414
Total Equities	\$ 3,095	\$ 2,701	\$ —	\$ —	\$ —	\$ —	\$ 3,517	\$ 3,115
Fixed Income								
U.S. government securities	\$ 2,666	\$ 1,701	\$ 484	\$ 560	\$ —	\$ —	\$ 3,150	\$ 2,261
Non-U.S. government securities	—	—	168	146	—	—	168	146
Preferred and convertible securities	4	4	2	1	—	—	6	5
U.S. corporate bonds	10	10	2,904	3,392	—	—	2,914	3,402
Non-U.S. corporate bonds	—	—	614	672	—	—	614	672
Derivative instruments	—	(1)	110	(31)	—	—	110	(32)
Other*							8	7
Total Fixed Income	\$ 2,680	\$ 1,714	\$ 4,282	\$ 4,740	\$ —	\$ —	\$ 6,970	\$ 6,461
Private Equity								
Derivative instruments	\$ —	\$ —	\$ —	\$ —	\$ (7)	\$ (83)	\$ (7)	\$ (83)
Growth equity	34	19	—	—	—	—	34	19
Partnership investments*							2,062	2,188
Total Private Equity	\$ 34	\$ 19	\$ —	\$ —	\$ (7)	\$ (83)	\$ 2,089	\$ 2,124
Absolute Return								
Derivative instruments	\$ —	\$ —	\$ —	\$ (7)	\$ —	\$ —	\$ —	\$ (7)
Fixed income and other	31	29	102	78	—	—	133	107
Hedge fund/fund of funds*							1,871	1,793
Partnership investments*							335	296
Total Absolute Return	\$ 31	\$ 29	\$ 102	\$ 71	\$ —	\$ —	\$ 2,339	\$ 2,189
Cash and Cash Equivalents								
Cash and cash equivalents	\$ 109	\$ 55	\$ 14	\$ —	\$ 1	\$ 2	\$ 124	\$ 57
Repurchase agreements and derivative margin activity	—	—	(502)	(545)	—	—	(502)	(545)
Cash and cash equivalents, valued at net asset value*							1,402	931
Total Cash and Cash Equivalents	\$ 109	\$ 55	\$ (488)	\$ (545)	\$ 1	\$ 2	\$ 1,024	\$ 443
Total	\$ 5,949	\$ 4,518	\$ 3,896	\$ 4,266	\$ (6)	\$ (81)	\$ 15,939	\$ 14,332
Other items to reconcile to fair value of plan assets							\$ (253)	\$ (251)
Fair value of plan assets							\$ 15,686	\$ 14,081

* In accordance with ASC 820-10, certain investments that are measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy. The NAV is based on the fair value of the underlying assets owned by the fund, minus its liabilities then divided by the number of units outstanding and is determined by the investment manager or custodian of the fund. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the fair value of plan assets.

The fair values of the assets held by the postretirement benefit plans by asset class are as follows:

(Millions) Asset Class	Fair Value Measurements Using Inputs Considered as						Fair Value at	
	Level 1		Level 2		Level 3		Dec. 31,	
	2017	2016	2017	2016	2017	2016	2017	2016
Equities								
U.S. equities	\$ 465	\$ 477	\$ —	\$ —	\$ —	\$ —	\$ 465	\$ 477
Non-U.S. equities	71	62	—	—	—	—	71	62
Index and long/short equity funds*							45	40
Total Equities	\$ 536	\$ 539	\$ —	\$ —	\$ —	\$ —	\$ 581	\$ 579
Fixed Income								
U.S. government securities	\$ 136	\$ 102	\$ 205	\$ 191	\$ —	\$ —	\$ 341	\$ 293
Non-U.S. government securities	—	—	9	9	—	—	9	9
U.S. corporate bonds	—	—	159	172	—	—	159	172
Non-U.S. corporate bonds	—	—	35	36	—	—	35	36
Derivative instruments	—	—	4	(1)	—	—	4	(1)
Total Fixed Income	\$ 136	\$ 102	\$ 412	\$ 407	\$ —	\$ —	\$ 548	\$ 509
Private Equity								
Derivative instruments	\$ —	\$ —	\$ —	\$ —	\$ —	\$ (3)	\$ —	\$ (3)
Growth equity	2	1	—	—	—	—	2	1
Partnership investments*							109	113
Total Private Equity	\$ 2	\$ 1	\$ —	\$ —	\$ —	\$ (3)	\$ 111	\$ 111
Absolute Return								
Fixed income and other	\$ 1	\$ 1	\$ 4	\$ 3	\$ —	\$ —	\$ 5	\$ 4
Hedge fund/fund of funds*							76	72
Partnership investments*							14	12
Total Absolute Return	\$ 1	\$ 1	\$ 4	\$ 3	\$ —	\$ —	\$ 95	\$ 88
Cash and Cash Equivalents								
Cash and cash equivalents	\$ 34	\$ 44	\$ 1	\$ 3	\$ —	\$ —	\$ 35	\$ 47
Repurchase agreements and derivative margin activity	—	—	(20)	(22)	—	—	(20)	(22)
Cash and cash equivalents, valued at net asset value*							57	38
Total Cash and Cash Equivalents	\$ 34	\$ 44	\$ (19)	\$ (19)	\$ —	\$ —	\$ 72	\$ 63
Total	\$ 709	\$ 687	\$ 397	\$ 391	\$ —	\$ (3)	\$ 1,407	\$ 1,350
Other items to reconcile to fair value of plan assets							\$ (10)	\$ 6
Fair value of plan assets							\$ 1,397	\$ 1,356

*In accordance with ASC 820-10, certain investments that are measured at fair value using the NAV per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy. The NAV is based on the fair value of the underlying assets owned by the fund, minus its liabilities then divided by the number of units outstanding and is determined by the investment manager or custodian of the fund. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the fair value of plan assets.

Publicly traded equities are valued at the closing price reported in the active market in which the individual securities are traded.

Fixed income includes derivative instruments such as credit default swaps, interest rate swaps and futures contracts. Corporate debt includes bonds and notes, asset backed securities, collateralized mortgage obligations and private placements. Swaps and derivative instruments are valued by the custodian using closing market swap curves and market derived inputs. U.S. government and government agency bonds and notes are valued at the closing price reported in the active market in which the individual security is traded. Corporate bonds and notes, asset backed securities and collateralized mortgage obligations are valued at either the yields currently available on comparable securities of issuers with similar credit ratings or valued under a discounted cash flow approach that utilizes observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that may not be observable such as credit and liquidity risks. Private placements are valued by the custodian using recognized pricing services and sources.

The private equity portfolio is a diversified mix of derivative instruments, growth equity and partnership interests. Derivative investments are written options that are valued by independent parties using market inputs and valuation models. Growth equity investments are valued at the closing price reported in the active market in which the individual securities are traded.

Absolute return consists primarily of partnership interests in hedge funds, hedge fund of funds or other private fund vehicles. Corporate debt instruments are valued at either the yields currently available on comparable securities of issuers with similar credit ratings or valued under a discounted cash flow approach that utilizes observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that may not be observable such as credit and liquidity risk ratings.

Other items to reconcile to fair value of plan assets include, interest receivables, amounts due for securities sold, amounts payable for securities purchased and interest payable.

The balances of and changes in the fair values of the U.S. pension plans' and postretirement plans' level 3 assets for the periods ended December 31, 2017 and 2016 were not material.

International Pension Plans Assets

Outside the U.S., pension plan assets are typically managed by decentralized fiduciary committees. The disclosure below of asset categories is presented in aggregate for over 70 defined benefit plans in 26 countries; however, there is significant variation in asset allocation policy from country to country. Local regulations, local funding rules, and local financial and tax considerations are part of the funding and investment allocation process in each country. The Company provides standard funding and investment guidance to all international plans with more focused guidance to the larger plans.

Each plan has its own strategic asset allocation. The asset allocations are reviewed periodically and rebalanced when necessary.

The fair values of the assets held by the international pension plans by asset class are as follows:

(Millions) Asset Class	Fair Value Measurements Using Inputs Considered as						Fair Value at	
	Level 1		Level 2		Level 3		Dec. 31,	
	2017	2016	2017	2016	2017	2016	2017	2016
Equities								
Growth equities	\$ 659	\$ 605	\$ 289	\$ 214	\$ —	\$ —	\$ 948	\$ 819
Value equities	597	575	43	28	—	—	640	603
Core equities	62	55	790	583	4	4	856	642
Equities, valued at net asset value*							21	16
Total Equities	\$ 1,318	\$ 1,235	\$ 1,122	\$ 825	\$ 4	\$ 4	\$ 2,465	\$ 2,080
Fixed Income								
Domestic government	\$ 362	\$ 340	\$ 256	\$ 202	\$ 4	\$ 3	\$ 622	\$ 545
Foreign government	168	142	338	353	—	—	506	495
Corporate debt securities	63	51	1,072	888	10	9	1,145	948
Fixed income securities, valued at net asset value*							976	641
Total Fixed Income	\$ 593	\$ 533	\$ 1,666	\$ 1,443	\$ 14	\$ 12	\$ 3,249	\$ 2,629
Private Equity								
Real estate	\$ 36	\$ 29	\$ 74	\$ 62	\$ 3	\$ 3	\$ 113	\$ 94
Real estate, valued at net asset value*							36	34
Partnership investments*							68	63
Total Private Equity	\$ 36	\$ 29	\$ 74	\$ 62	\$ 3	\$ 3	\$ 217	\$ 191
Absolute Return								
Derivatives	\$ —	\$ (4)	\$ 2	\$ —	\$ —	\$ —	\$ 2	\$ (4)
Insurance	—	—	—	—	519	455	519	455
Other	—	—	—	—	7	6	7	6
Other, valued at net asset value*							1	—
Hedge funds*							194	174
Total Absolute Return	\$ —	\$ (4)	\$ 2	\$ —	\$ 526	\$ 461	\$ 723	\$ 631
Cash and Cash Equivalents								
Cash and cash equivalents	\$ 67	\$ 99	\$ 34	\$ 18	\$ —	\$ —	\$ 101	\$ 117
Cash and cash equivalents, valued at net asset value*							3	4
Total Cash and Cash Equivalents	\$ 67	\$ 99	\$ 34	\$ 18	\$ —	\$ —	\$ 104	\$ 121
Total	\$ 2,014	\$ 1,892	\$ 2,898	\$ 2,348	\$ 547	\$ 480	\$ 6,758	\$ 5,652
Other items to reconcile to fair value of plan assets							\$ (21)	\$ (35)
Fair value of plan assets							\$ 6,737	\$ 5,617

*In accordance with ASC 820-10, certain investments that are measured at fair value using the NAV per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy. The NAV is based on the fair value of the underlying assets owned by the fund, minus its liabilities then divided by the number of units outstanding and is determined by the investment manager or custodian of the fund. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the fair value of plan assets.

Equities consist primarily of mandates in public equity securities managed to various public equity indices. Publicly traded equities are valued at the closing price reported in the active market in which the individual securities are traded.

Fixed Income investments include domestic and foreign government, and corporate, (including mortgage backed and other debt) securities. Governments, corporate bonds and notes and mortgage backed securities are valued at the closing price reported if traded on an active market or at yields currently available on comparable securities of issuers with similar credit ratings or valued under a discounted cash flow approach that utilizes observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that may not be observable such as credit and liquidity risks.

Private equity funds consist of partnership interests in a variety of funds. Real estate consists of property funds and REITS (Real Estate Investment Trusts). REITS are valued at the closing price reported in the active market in which it is traded.

Absolute return consists of private partnership interests in hedge funds, insurance contracts, derivative instruments, hedge fund of funds, and other alternative investments. Insurance consists of insurance contracts, which are valued using

cash surrender values which is the amount the plan would receive if the contract was cashed out at year end. Derivative instruments consist of interest rate swaps that are used to help manage risks.

Other items to reconcile to fair value of plan assets include the net of interest receivables, amounts due for securities sold, amounts payable for securities purchased and interest payable.

The balances of and changes in the fair values of the international pension plans' level 3 assets consist primarily of insurance contracts under the absolute return asset class. The aggregate of net purchases and net unrealized gains increased this balance by \$48 million and \$8 million in 2017 and 2016, respectively. Foreign currency exchange impacts increased this balance by \$16 million in 2017 and decreased this balance by \$9 million in 2016.

NOTE 13. Derivatives

The Company uses interest rate swaps, currency swaps, commodity price swaps, and forward and option contracts to manage risks generally associated with foreign exchange rate, interest rate and commodity price fluctuations. The information that follows explains the various types of derivatives and financial instruments used by 3M, how and why 3M uses such instruments, how such instruments are accounted for, and how such instruments impact 3M's financial position and performance.

Additional information with respect to the impacts on other comprehensive income of nonderivative hedging and derivative instruments is included in Note 7. Additional information with respect to the fair value of derivative instruments is included in Note 14. References to information regarding derivatives and/or hedging instruments associated with the Company's long-term debt are also made in Note 11.

Types of Derivatives/Hedging Instruments and Inclusion in Income/Other Comprehensive Income:

Cash Flow Hedges:

For derivative instruments that are designated and qualify as cash flow hedges, the effective portion of the gain or loss on the derivative is reported as a component of other comprehensive income and reclassified into earnings in the same period during which the hedged transaction affects earnings. Gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current earnings.

Cash Flow Hedging - Foreign Currency Forward and Option Contracts: The Company enters into foreign exchange forward and option contracts to hedge against the effect of exchange rate fluctuations on cash flows denominated in foreign currencies. These transactions are designated as cash flow hedges. The settlement or extension of these derivatives will result in reclassifications (from accumulated other comprehensive income) to earnings in the period during which the hedged transactions affect earnings. 3M may dedesignate these cash flow hedge relationships in advance of the occurrence of the forecasted transaction. The portion of gains or losses on the derivative instrument previously accumulated in other comprehensive income for dedesignated hedges remains in accumulated other comprehensive income until the forecasted transaction occurs or becomes probable of not occurring. Changes in the value of derivative instruments after dedesignation are recorded in earnings and are included in the Derivatives Not Designated as Hedging Instruments section below. The maximum length of time over which 3M hedges its exposure to the variability in future cash flows of the forecasted transactions is 36 months.

Cash Flow Hedging — Interest Rate Contracts: In the third and fourth quarters of 2014, the Company entered into forward starting interest rate swaps with notional amounts totaling 500 million Euros as a hedge against interest rate volatility associated with the forecasted issuance of fixed rate debt. 3M terminated these interest rate swaps upon issuance of 750 million Euros aggregate principal amount of twelve-year fixed rate notes in connection with 3M's 1.250 billion Eurobond offering in November 2014. The termination resulted in an \$8 million pre-tax (\$5 million after-tax) loss within accumulated other comprehensive income that will be amortized over the twelve-year life of the notes.

In the first six months of 2016, the Company entered into forward starting interest rate swaps that expired in December 2016 with an aggregate notional amount of \$300 million as a hedge against interest rate volatility associated with a forecasted issuance of fixed rate debt. Upon issuance of medium-term notes in September 2016, 3M terminated these

interest rate swaps. The termination resulted in an immaterial loss within accumulated other comprehensive income that will be amortized over the respective lives of the debt. In the fourth quarter of 2016, the Company entered into forward starting interest rate swaps with a notional amount of \$200 million as a hedge against interest rate volatility associated with a forecasted issuance of fixed rate debt.

In the first, second, and third quarters of 2017, the Company entered into additional forward starting interest rate swaps with notional amounts of \$200 million in each quarter as hedges against interest rate volatility associated with a forecasted issuance of fixed rate debt. Prior to the issuance of medium-term notes in October 2017, 3M terminated these interest rate swaps. The termination resulted in an immaterial loss within accumulated other comprehensive income that will be amortized over the respective lives of the debt.

The amortization of gains and losses on forward starting interest rate swaps is included in the tables below as part of the gain/(loss) recognized in income on the effective portion of derivatives as a result of reclassification from accumulated other comprehensive income.

As of December 31, 2017, the Company had a balance of \$112 million associated with the after tax net unrealized loss associated with cash flow hedging instruments recorded in accumulated other comprehensive income. This includes a remaining balance of \$8 million (after tax loss) related to forward starting interest rate swaps, which will be amortized over the respective lives of the notes. Based on exchange rates as of December 31, 2017, 3M expects to reclassify approximately \$64 million, \$30 million, and approximately \$18 million of the after-tax net unrealized foreign exchange cash flow hedging losses to earnings in 2018, 2019, and after 2019, respectively (with the impact offset by earnings/losses from underlying hedged items).

The location in the consolidated statements of income and comprehensive income and amounts of gains and losses related to derivative instruments designated as cash flow hedges are provided in the following table. Reclassifications of amounts from accumulated other comprehensive income into income include accumulated gains (losses) on dedesignated hedges at the time earnings are impacted by the forecasted transaction.

Year ended December 31, 2017 (Millions)	Pretax Gain (Loss) Recognized in Other Comprehensive Income on Effective Portion of Derivative	Pretax Gain (Loss) Recognized in Income on Effective Portion of Derivative as a Result of Reclassification from Accumulated Other Comprehensive Income		Ineffective Portion of Gain (Loss) on Derivative and Amount Excluded from Effectiveness Testing Recognized in Income	
	Amount	Location	Amount	Location	Amount
Foreign currency forward/option contracts	\$ (305)	Cost of sales	\$ 8	Cost of sales	\$ —
Interest rate swap contracts	(6)	Interest expense	(1)	Interest expense	—
Total	\$ (311)		\$ 7		\$ —
Year ended December 31, 2016					
(Millions)	Amount	Location	Amount	Location	Amount
Foreign currency forward/option contracts	\$ 58	Cost of sales	\$ 110	Cost of sales	\$ —
Interest rate swap contracts	(1)	Interest expense	(1)	Interest expense	—
Total	\$ 57		\$ 109		\$ —
Year ended December 31, 2015					
(Millions)	Amount	Location	Amount	Location	Amount
Foreign currency forward/option contracts	\$ 212	Cost of sales	\$ 178	Cost of sales	\$ —
Commodity price swap contracts	—	Cost of sales	(2)	Cost of sales	—
Interest rate swap contracts	—	Interest expense	(2)	Interest expense	—
Total	\$ 212		\$ 174		\$ —

Fair Value Hedges:

For derivative instruments that are designated and qualify as fair value hedges, the gain or loss on the derivatives as well as the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in current earnings.

Fair Value Hedging - Interest Rate Swaps: The Company manages interest expense using a mix of fixed and floating 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 mark-to-market of these fair value hedges is recorded as gains or losses in interest expense and is offset by the gain or loss of the underlying debt instrument, which also is recorded in interest expense. These fair value hedges are highly effective and, thus, there is no impact on earnings due to hedge ineffectiveness.

In November 2013, 3M issued a Eurobond due in 2021 for a face amount of 600 million Euros. Upon debt issuance, 3M completed a fixed-to-floating interest rate swap on a notional amount of 300 million Euros as a fair value hedge of a portion of the fixed interest rate Eurobond obligation.

In June 2014, 3M issued \$950 million aggregate principal amount of medium-term notes. Upon debt issuance, the Company entered into an interest rate swap to convert \$600 million of a \$625 million note included in this issuance to an interest rate based on a floating three-month LIBOR index as a fair value hedge of a portion of the fixed interest rate medium-term note obligation.

In August 2015, 3M issued \$1.500 billion aggregate principal amount of medium-term notes. Upon debt issuance, the Company entered into two interest rate swaps as fair value hedges of a portion of the fixed interest rate medium-term note obligation. The first converted a \$450 million three-year fixed rate note, and the second converted \$300 million of a five-year fixed rate note included in this issuance to an interest rate based on a floating three-month LIBOR index.

In the fourth quarter of 2017, the Company entered into an interest rate swap with a notional amount of \$200 million that converted the company's fixed-rate medium-term note due 2020 into a floating-rate note as a hedge of its exposure to changes in the fair value that is attributable to interest rate risk.

The location in the consolidated statements of income and amounts of gains and losses related to derivative instruments designated as fair value hedges and similar information relative to the hedged items are as follows:

Year ended December 31, 2017 (Millions)	Gain (Loss) on Derivative Recognized in Income		Gain (Loss) on Hedged Item Recognized in Income	
	Location	Amount	Location	Amount
Interest rate swap contracts	Interest expense	\$ (9)	Interest expense	\$ 9
Total		\$ (9)		\$ 9
Year ended December 31, 2016 (Millions)	Gain (Loss) on Derivative Recognized in Income		Gain (Loss) on Hedged Item Recognized in Income	
	Location	Amount	Location	Amount
Interest rate swap contracts	Interest expense	\$ (2)	Interest expense	\$ 2
Total		\$ (2)		\$ 2
Year ended December 31, 2015 (Millions)	Gain (Loss) on Derivative Recognized in Income		Gain (Loss) on Hedged Item Recognized in Income	
	Location	Amount	Location	Amount
Interest rate swap contracts	Interest expense	\$ (2)	Interest expense	\$ 2
Total		\$ (2)		\$ 2

Net Investment Hedges:

The Company may use non-derivative (foreign currency denominated debt) and derivative (foreign exchange forward contracts) instruments to hedge portions of the Company's investment in foreign subsidiaries and manage foreign exchange risk. For instruments that are designated and qualify as hedges of net investments in foreign operations and that meet the effectiveness requirements, the net gains or losses attributable to changes in spot exchange rates are recorded in cumulative translation within other comprehensive income. The remainder of the change in value of such instruments is recorded in earnings. Recognition in earnings of amounts previously recorded in cumulative translation is limited to circumstances such as complete or substantially complete liquidation of the net investment in the hedged foreign operation. To the extent foreign currency denominated debt is not designated in or is dedesignated from a net investment hedge relationship, changes in value of that portion of foreign currency denominated debt due to exchange rate changes are recorded in earnings through their maturity date.

3M's use of foreign exchange forward contracts designated in hedges of the Company's net investment in foreign subsidiaries can vary by time period depending on when foreign currency denominated debt balances designated in such relationships are dedesignated, matured, or are newly issued and designated. Additionally, variation can occur in connection with the extent of the Company's desired foreign exchange risk coverage.

At December 31, 2017, the total notional amount of foreign exchange forward contracts designated in net investment hedges was approximately 150 million Euros and approximately 248 billion South Korean Won, along with a principal amount of long-term debt instruments designated in net investment hedges totaling 4.4 billion Euros. The maturity dates of these derivative and nonderivative instruments designated in net investment hedges range from 2018 to 2031.

The location in the consolidated statements of income and comprehensive income and amounts of gains and losses related to derivative and nonderivative instruments designated as net investment hedges are as follows. There were no reclassifications of the effective portion of net investment hedges out of accumulated other comprehensive income into income for the periods presented in the table below.

Year ended December 31, 2017 (Millions)	Pretax Gain (Loss) Recognized as Cumulative Translation within Other Comprehensive Income on Effective Portion of Instrument	Ineffective Portion of Gain (Loss) on Instrument and Amount Excluded from Effectiveness Testing Recognized in Income	
	Amount	Location	Amount
Foreign currency denominated debt	\$ (667)	N/A	\$ —
Foreign currency forward contracts	(58)	Cost of sales	7
Total	\$ (725)		\$ 7
Year ended December 31, 2016			
(Millions)	Amount	Location	Amount
Foreign currency denominated debt	\$ 215	N/A	\$ —
Foreign currency forward contracts	(9)	Cost of sales	(3)
Total	\$ 206		\$ (3)
Year ended December 31, 2015			
(Millions)	Amount	Location	Amount
Foreign currency denominated debt	\$ 63	N/A	\$ —
Foreign currency forward contracts	143	Cost of sales	11
Total	\$ 206		\$ 11

Derivatives Not Designated as Hedging Instruments:

Derivatives not designated as hedging instruments include dedesignated foreign currency forward and option contracts that formerly were designated in cash flow hedging relationships (as referenced in the Cash Flow Hedges section above). In addition, 3M enters into foreign currency forward contracts to offset, in part, the impacts of certain intercompany activities (primarily associated with intercompany licensing arrangements) and enters into commodity price swaps to offset, in part, fluctuations in costs associated with the use of certain commodities and precious metals. These derivative instruments are not designated in hedging relationships; therefore, fair value gains and losses on these contracts are recorded in earnings. The Company does not hold or issue derivative financial instruments for trading purposes.

The location in the consolidated statements of income and amounts of gains and losses related to derivative instruments not designated as hedging instruments are as follows:

(Millions)	Location	Gain (Loss) on Derivative Recognized in Income		
		Year ended December 31, 2017	Year ended December 31, 2016	Year ended December 31, 2015
		Amount	Amount	Amount
Foreign currency forward/option contracts	Cost of sales	\$ 11	\$ (14)	\$ 5
Foreign currency forward contracts	Interest expense	(141)	9	82
Commodity price swap contracts	Cost of sales	—	—	(3)
Total		\$ (130)	\$ (5)	\$ 84

Location and Fair Value Amount of Derivative Instruments:

The following tables summarize the fair value of 3M's derivative instruments, excluding nonderivative instruments used as hedging instruments, and their location in the consolidated balance sheet. Notional amounts below are presented at period end foreign exchange rates, except for certain interest rate swaps, which are presented using the inception date's foreign exchange rate. Additional information with respect to the fair value of derivative instruments is included in Note 14.

December 31, 2017 (Millions)	Gross Notional Amount	Assets		Liabilities	
		Location	Fair Value Amount	Location	Fair Value Amount
Derivatives designated as hedging instruments					
Foreign currency forward/option contracts	\$ 2,204	Other current assets	\$ 7	Other current liabilities	\$ 109
Foreign currency forward/option contracts	1,392	Other assets	20	Other liabilities	56
Interest rate swap contracts	450	Other current assets	—	Other current liabilities	1
Interest rate swap contracts	1,503	Other assets	21	Other liabilities	6
Total derivatives designated as hedging instruments			\$ 48		\$ 172
Derivatives not designated as hedging instruments					
Foreign currency forward/option contracts	\$ 4,974	Other current assets	\$ 30	Other current liabilities	\$ 25
Total derivatives not designated as hedging instruments			\$ 30		\$ 25
Total derivative instruments			\$ 78		\$ 197
December 31, 2016 (Millions)	Gross Notional Amount	Assets		Liabilities	
		Location	Fair Value Amount	Location	Fair Value Amount
Derivatives designated as hedging instruments					
Foreign currency forward/option contracts	\$ 2,160	Other current assets	\$ 107	Other current liabilities	\$ 9
Foreign currency forward/option contracts	1,459	Other assets	86	Other liabilities	3
Interest rate swap contracts	1,953	Other assets	25	Other current liabilities	1
Total derivatives designated as hedging instruments			\$ 218		\$ 13
Derivatives not designated as hedging instruments					
Foreign currency forward/option contracts	\$ 5,655	Other current assets	\$ 41	Other current liabilities	\$ 82
Total derivatives not designated as hedging instruments			\$ 41		\$ 82
Total derivative instruments			\$ 259		\$ 95

Credit Risk and Offsetting of Assets and Liabilities of Derivative Instruments:

The Company is exposed to credit loss in the event of nonperformance by counterparties in interest rate swaps, currency swaps, commodity price swaps, and forward and option contracts. However, the Company's risk is limited to the fair value of the instruments. 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. 3M enters into master netting arrangements with counterparties when possible to mitigate credit risk in derivative transactions. A master netting arrangement may allow each counterparty to net settle amounts owed between a 3M entity and the counterparty as a result of multiple, separate derivative transactions. As of December 31, 2017, 3M has International Swaps and Derivatives Association (ISDA) agreements with 17 applicable banks and financial institutions which contain netting provisions. In addition to a master agreement with 3M supported by a primary counterparty's parent guarantee, 3M also has associated credit support agreements in place with 16 of its primary derivative counterparties which, among other things, provide the circumstances under which either party is required to post eligible collateral (when the market value of transactions covered by these agreements exceeds specified thresholds or if a counterparty's credit rating has been downgraded to a predetermined rating). The Company does not anticipate nonperformance by any of these counterparties.

3M has elected to present the fair value of derivative assets and liabilities within the Company's consolidated balance sheet on a gross basis even when derivative transactions are subject to master netting arrangements and may otherwise qualify for net presentation. However, the following tables provide information as if the Company had elected to offset the asset and liability balances of derivative instruments, netted in accordance with various criteria in the event of default or termination as stipulated by the terms of netting arrangements with each of the counterparties. For each counterparty, if netted, the Company would offset the asset and liability balances of all derivatives at the end of the reporting period based on the 3M entity that is a party to the transactions. Derivatives not subject to master netting agreements are not eligible for net presentation. As of the applicable dates presented below, no cash collateral had been received or pledged related to these derivative instruments.

Offsetting of Financial Assets under Master Netting Agreements with Derivative Counterparties

December 31, 2017 (Millions)	Gross Amount of Derivative Assets Presented in the Consolidated Balance Sheet	Gross Amounts not Offset in the Consolidated Balance Sheet that are Subject to Master Netting Agreements			Net Amount of Derivative Assets
		Gross Amount of Eligible Offsetting Recognized Derivative Liabilities	Cash Collateral Received		
Derivatives subject to master netting agreements	\$ 78	\$ 27	\$ —	\$ —	\$ 51
Derivatives not subject to master netting agreements	—				—
Total	\$ 78				\$ 51
December 31, 2016 (Millions)					
Derivatives subject to master netting agreements	\$ 259	\$ 39	\$ —	\$ —	\$ 220
Derivatives not subject to master netting agreements	—				—
Total	\$ 259				\$ 220

Offsetting of Financial Liabilities under Master Netting Agreements with Derivative Counterparties

December 31, 2017 (Millions)	Gross Amount of Derivative Liabilities Presented in the Consolidated Balance Sheet	Gross Amounts not Offset in the Consolidated Balance Sheet that are Subject to Master Netting Agreements			Net Amount of Derivative Liabilities
		Gross Amount of Eligible Offsetting Recognized Derivative Assets	Cash Collateral Pledged		
Derivatives subject to master netting agreements	\$ 197	\$ 27	\$ —	\$	170
Derivatives not subject to master netting agreements	—				—
Total	\$ 197				\$ 170

December 31, 2016 (Millions)	Gross Amount of Derivative Liabilities Presented in the Consolidated Balance Sheet	Gross Amount of Eligible Offsetting Recognized Derivative Assets	Cash Collateral Pledged		Net Amount of Derivative Liabilities
Derivatives subject to master netting agreements	\$ 93	\$ 39	\$ —	\$	54
Derivatives not subject to master netting agreements	2				2
Total	\$ 95				\$ 56

Foreign Currency Effects

3M estimates that year-on-year foreign currency transaction effects, including hedging impacts, decreased pre-tax income by approximately \$152 million in 2017 and decreased pre-tax income by approximately \$69 million in 2016. These estimates include transaction gains and losses, including derivative instruments designed to reduce foreign currency exchange rate risks.

NOTE 14. Fair Value Measurements

3M follows ASC 820, *Fair Value Measurements and Disclosures*, with respect to assets and liabilities that are measured at fair value on a recurring basis and nonrecurring basis. Under the standard, fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The standard also establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use in valuing the asset or liability developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The hierarchy is broken down into three levels. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for the asset or liability. Categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

Assets and Liabilities that are Measured at Fair Value on a Recurring Basis:

For 3M, assets and liabilities that are measured at fair value on a recurring basis primarily relate to available-for-sale marketable securities and certain derivative instruments. Derivatives include cash flow hedges, interest rate swaps and net investment hedges. The information in the following paragraphs and tables primarily addresses matters relative to these financial assets and liabilities. Separately, there were no material fair value measurements with respect to nonfinancial assets or liabilities that are recognized or disclosed at fair value in the Company's financial statements on a recurring basis for 2017 and 2016.

3M uses various valuation techniques, which are primarily based upon the market and income approaches, with respect to financial assets and liabilities. Following is a description of the valuation methodologies used for the respective financial assets and liabilities measured at fair value.

Available-for-sale marketable securities — except certain U.S. municipal securities:

Marketable securities, except certain U.S. municipal securities, are valued utilizing multiple sources. A weighted average price is used for these securities. Market prices are obtained for these securities from a variety of industry standard data providers, security master files from large financial institutions, and other third-party sources. These multiple prices are used as inputs into a distribution-curve-based algorithm to determine the daily fair value to be used. 3M classifies U.S. treasury securities as level 1, while all other marketable securities (excluding certain U.S. municipal securities) are classified as level 2. Marketable securities are discussed further in Note 10.

Available-for-sale marketable securities — certain U.S. municipal securities only:

3M holds municipal bonds with the City of Nevada, Missouri, which represent 3M's only U.S. municipal securities holding as of December 31, 2017. Due to the nature of this security, the valuation method utilized will include the financial health of the City of Nevada, any recent municipal bond issuances by Nevada, and macroeconomic considerations related to the direction of interest rates and the health of the overall municipal bond market, and as such will be classified as a level 3 security.

Derivative instruments:

The Company's derivative assets and liabilities within the scope of ASC 815, *Derivatives and Hedging*, are required to be recorded at fair value. The Company's derivatives that are recorded at fair value include foreign currency forward and option contracts, commodity price swaps, interest rate swaps, and net investment hedges where the hedging instrument is recorded at fair value. Net investment hedges that use foreign currency denominated debt to hedge 3M's net investment are not impacted by the fair value measurement standard under ASC 820, as the debt used as the hedging instrument is marked to a value with respect to changes in spot foreign currency exchange rates and not with respect to other factors that may impact fair value.

3M has determined that foreign currency forwards, commodity price swaps, currency swaps, foreign currency options, interest rate swaps and cross-currency swaps will be considered level 2 measurements. 3M uses inputs other than quoted prices that are observable for the asset. These inputs include foreign currency exchange rates, volatilities, and interest rates. Derivative positions are primarily valued using standard calculations/models that use as their basis readily observable market parameters. Industry standard data providers are 3M's primary source for forward and spot rate information for both interest rates and currency rates, with resulting valuations periodically validated through third-party or counterparty quotes and a net present value stream of cash flows model.

The following tables provide information by level for assets and liabilities that are measured at fair value on a recurring basis.

Description (Millions)	Fair Value at December 31, 2017	Fair Value Measurements Using Inputs Considered as		
		Level 1	Level 2	Level 3
Assets:				
Available-for-sale:				
Marketable securities:				
Corporate debt securities	\$ 14	\$ —	\$ 14	\$ —
Commercial paper	899	—	899	—
Certificates of deposit/time deposits	76	—	76	—
Asset-backed securities:				
Automobile loan related	16	—	16	—
Credit card related	68	—	68	—
U.S. municipal securities	30	—	—	30
Derivative instruments — assets:				
Foreign currency forward/option contracts	57	—	57	—
Interest rate swap contracts	21	—	21	—
Liabilities:				
Derivative instruments — liabilities:				
Foreign currency forward/option contracts	190	—	190	—
Interest rate swap contracts	7	—	7	—

Description (Millions)	Fair Value at December 31, 2016	Fair Value Measurements Using Inputs Considered as		
		Level 1	Level 2	Level 3
Assets:				
Available-for-sale:				
Marketable securities:				
Corporate debt securities	\$ 10	\$ —	\$ 10	\$ —
Commercial paper	14	—	14	—
Certificates of deposit/time deposits	197	—	197	—
Asset-backed securities:				
Automobile loan related	31	—	31	—
Credit card related	18	—	18	—
Other	7	—	7	—
U.S. municipal securities	20	—	—	20
Derivative instruments — assets:				
Foreign currency forward/option contracts	234	—	234	—
Interest rate swap contracts	25	—	25	—
Liabilities:				
Derivative instruments — liabilities:				
Foreign currency forward/option contracts	94	—	94	—
Interest rate swap contracts	1	—	1	—

The following table provides a reconciliation of the beginning and ending balances of items measured at fair value on a recurring basis in the table above that used significant unobservable inputs (level 3).

Marketable securities — certain U.S. municipal securities only

(Millions)	2017	2016	2015
Beginning balance	\$ 20	\$ 12	\$ 15
Total gains or losses:			
Included in earnings	—	—	—
Included in other comprehensive income	—	—	—
Purchases and issuances	13	12	—
Sales and settlements	(3)	(4)	(3)
Transfers in and/or out of level 3	—	—	—
Ending balance	30	20	12
Change in unrealized gains or losses for the period included in earnings for securities held at the end of the reporting period	—	—	—

In addition, the plan assets of 3M's pension and postretirement benefit plans are measured at fair value on a recurring basis (at least annually). Refer to Note 12.

Assets and Liabilities that are Measured at Fair Value on a Nonrecurring Basis:

Disclosures are required for certain assets and liabilities that are measured at fair value, but are recognized and disclosed at fair value on a nonrecurring basis in periods subsequent to initial recognition. For 3M, such measurements of fair value relate primarily to long-lived asset impairments. During 2017, the Company recognized approximately \$61 million in long-lived asset impairments within its Electronics and Energy and Industrial business segments, with the complete carrying amount of such assets written off and included in operating income results. There were no material long-lived asset impairments for 2016 and 2015.

Fair Value of Financial Instruments:

The Company's financial instruments include cash and cash equivalents, marketable securities, accounts receivable, certain investments, accounts payable, borrowings, and derivative contracts. The fair values of cash equivalents, accounts receivable, accounts payable, and short-term borrowings and current portion of long-term debt approximated carrying values because of the short-term nature of these instruments. Available-for-sale marketable securities, in addition to certain derivative instruments, are recorded at fair values as indicated in the preceding disclosures. To estimate fair values (classified as level 2) for its long-term debt, the Company utilized third-party quotes, which are derived all or in part from model prices, external sources, market prices, or the third-party's internal records. Information with respect to the carrying amounts and estimated fair values of these financial instruments follow:

(Millions)	December 31, 2017		December 31, 2016	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Long-term debt, excluding current portion	\$ 12,096	\$ 12,535	\$ 10,678	\$ 11,168

The fair values reflected above consider the terms of the related debt absent the impacts of derivative/hedging activity. The carrying amount of long-term debt referenced above is impacted by certain fixed-to-floating interest rate swaps that are designated as fair value hedges and by the designation of fixed rate Eurobond securities issued by the Company as hedging instruments of the Company's net investment in its European subsidiaries. Many of 3M's fixed-rate bonds were trading at a premium at December 31, 2017 and 2016 due to the low interest rates and tightening of 3M's credit spreads.

NOTE 15. Commitments and Contingencies

Capital and Operating Leases:

Rental expense under operating leases was \$343 million in 2017, \$318 million in 2016 and \$316 million in 2015. It is 3M's practice to secure renewal rights for leases, thereby giving 3M the right, but not the obligation, to maintain a presence in a leased facility. 3M has two primary capital leases. The first, which became effective in April 2003, involves a building in the United Kingdom (with a lease term of 22 years). During the second quarter of 2003, 3M recorded a capital lease asset and obligation of approximately 33.5 million British Pound (GBP), or approximately \$27 million at December 31, 2017, exchange rates. For the second, 3M sold and leased-back certain recently constructed machinery and equipment in return for municipal bonds with the City of Nevada, Missouri. 3M recorded a capital lease asset and obligation of approximately \$13 million in 2017, \$12 million in 2016, and \$15 million in earlier years, with a lease term of 15 years.

Minimum lease payments under capital and operating leases with non-cancelable terms in excess of one year as of December 31, 2017, were as follows:

<u>(Millions)</u>	<u>Capital Leases</u>	<u>Operating Leases</u>
2018	\$ 12	\$ 258
2019	10	212
2020	9	160
2021	6	106
2022	5	88
After 2022	34	274
Total	<u>\$ 76</u>	<u>\$ 1,098</u>
Less: Amounts representing interest	3	
Present value of future minimum lease payments	73	
Less: Current obligations under capital leases	13	
Long-term obligations under capital leases	<u>\$ 60</u>	

Unconditional Purchase Obligations:

Unconditional purchase obligations are defined as an agreement to purchase goods or services that is enforceable and legally binding (non-cancelable, or cancelable only in certain circumstances). The Company estimates its total unconditional purchase obligation commitment (for those contracts with terms in excess of one year) as of December 31, 2017, at \$800 million. Payments by year are estimated as follows: 2018 (\$271 million), 2019 (\$211 million), 2020 (\$150 million), 2021 (\$99 million), 2022 (\$56 million) and after 2022 (\$13 million). Many of these commitments relate to take or pay contracts, in which 3M guarantees payment to ensure availability of products or services that are sold to customers. The Company expects to receive consideration (products or services) for these unconditional purchase obligations. The purchase obligation amounts do not represent the entire anticipated purchases in the future, but represent only those items for which the Company is contractually obligated. The majority of 3M's products and services are purchased as needed, with no unconditional commitment. For this reason, these amounts will not provide an indication of the Company's expected future cash outflows related to purchases.

Warranties/Guarantees:

3M's accrued product warranty liabilities, recorded on the Consolidated Balance Sheet as part of current and long-term liabilities, are estimated at approximately \$50 million at December 31, 2017, and \$47 million at December 31, 2016. 3M does not consider this amount to be material. The fair value of 3M guarantees of loans with third parties and other guarantee arrangements are not material.

Related Party Activity:

3M does not have any material related party activity.

Legal Proceedings:

The Company and some of its subsidiaries are involved in numerous claims and lawsuits, principally in the United States, and regulatory proceedings worldwide. These include various products liability (involving products that the Company now or formerly manufactured and sold), intellectual property, and commercial claims and lawsuits, including those brought under the antitrust laws, and environmental proceedings. Unless otherwise stated, the Company is vigorously defending all such litigation.

Process for Disclosure and Recording of Liabilities and Insurance Receivables Related to Legal Proceedings

Many lawsuits and claims involve highly complex issues relating to causation, scientific evidence, and whether there are actual damages and are otherwise subject to substantial uncertainties. Assessments of lawsuits and claims can involve a series of complex judgments about future events and can rely heavily on estimates and assumptions. The Company complies with the requirements of ASC 450, *Contingencies*, and related guidance, and records liabilities for legal proceedings in those instances where it can reasonably estimate the amount of the loss and where liability is probable. Where the reasonable estimate of the probable loss is a range, the Company records the most likely estimate of the loss, or the low end of the range if there is no one best estimate. The Company either discloses the amount of a possible loss or range of loss in excess of established accruals if estimable, or states that such an estimate cannot be made. The Company discloses significant legal proceedings even where liability is not probable or the amount of the liability is not estimable, or both, if the Company believes there is at least a reasonable possibility that a loss may be incurred.

The Company estimates insurance receivables based on an analysis of its numerous policies, including their exclusions, pertinent case law interpreting comparable policies, its experience with similar claims, and assessment of the nature of the claim and remaining coverage, and records an amount it has concluded is likely to be recovered. For those insured matters where the Company has taken an accrual, the Company also records receivables for the amount of insurance that it expects to recover under the Company's insurance program. For those insured matters where the Company has not taken an accrual because the liability is not probable or the amount of the liability is not estimable, or both, but where the Company has incurred an expense in defending itself, the Company records receivables for the amount of insurance that it expects to recover for the expense incurred.

Because litigation is subject to inherent uncertainties, and unfavorable rulings or developments could occur, there can be no certainty that the Company may not ultimately incur charges in excess of presently recorded liabilities. A future adverse ruling, settlement, or unfavorable development could result in future charges that could have a material adverse effect on the Company's results of operations or cash flows in the period in which they are recorded. Although the Company cannot estimate its exposure to all legal proceedings, it currently believes, except as described below, that such future charges, if any, would not have a material adverse effect on the consolidated financial position of the Company. Based on experience and developments, the Company reexamines its estimates of probable liabilities and associated expenses and receivables each period, and whether it is able to estimate a liability previously determined to be not estimable and/or not probable. Where appropriate, the Company makes additions to or adjustments of its estimated liabilities. As a result, the current estimates of the potential impact on the Company's consolidated financial position, results of operations and cash flows for the legal proceedings and claims pending against the Company could change in the future.

The following sections first describe the significant legal proceedings in which the Company is involved, and then describe the liabilities and associated insurance receivables the Company has accrued relating to its significant legal proceedings.

Respirator Mask/Asbestos Litigation

As of December 31, 2017, the Company is a named defendant, with multiple co-defendants, in numerous lawsuits in various courts that purport to represent approximately 2,230 individual claimants, compared to approximately 2,660 individual claimants with actions pending at December 31, 2016.

The vast majority of the lawsuits and claims resolved by and currently pending against the Company allege use of some of the Company's mask and respirator products and seek damages from the Company and other defendants for alleged personal injury from workplace exposures to asbestos, silica, coal mine dust or other occupational dusts found in products manufactured by other defendants or generally in the workplace. A minority of the lawsuits and claims resolved by and currently pending against the Company generally allege personal injury from occupational exposure to asbestos from products previously manufactured by the Company, which are often unspecified, as well as products manufactured by other defendants, or occasionally at Company premises.

The Company's current volume of new and pending matters is substantially lower than it experienced at the peak of filings in 2003. The Company expects that filing of claims by unimpaired claimants in the future will continue to be at much lower levels than in the past. Accordingly, the number of claims alleging more serious injuries, including mesothelioma and other malignancies, will represent a greater percentage of total claims than in the past. The Company has prevailed in all twelve cases taken to trial, including ten of the eleven cases tried to verdict (such trials occurred in 1999, 2000, 2001, 2003, 2004, 2007, 2015, and the cases tried in 2016 and 2017—described below), and an appellate reversal in 2005 of the 2001 jury verdict adverse to the Company. The remaining case, tried in 2009, was dismissed by the court at the close of plaintiff's evidence, based on the court's legal finding that the plaintiff had not presented sufficient evidence to support a jury verdict. In August 2016, 3M received a unanimous verdict in its favor from a jury in state court in Kentucky, in 3M's first respirator trial involving coal mine dust. The estate of the plaintiff alleged that the 3M 8710 respirator is defective and caused his death because it did not protect him from harmful coal mine dust. The jury rejected plaintiff's claim and returned a verdict finding no liability against 3M. The verdict is final as the plaintiff did not file an appeal. In September 2017, 3M received a unanimous verdict in its favor from a jury in state court in Kentucky in 3M's second respirator trial involving coal mine dust. The jury ultimately determined that the plaintiff's claims were barred by the statute of limitations. In November 2017, the court denied the plaintiff's motion for a new trial. The plaintiff did not file an appeal, thereby ending the litigation.

The Company has demonstrated in these past trial proceedings that its respiratory protection products are effective as claimed when used in the intended manner and in the intended circumstances. Consequently the Company believes that claimants are unable to establish that their medical conditions, even if significant, are attributable to the Company's respiratory protection products. Nonetheless the Company's litigation experience indicates that claims of persons with malignant conditions are costlier to resolve than the claims of unimpaired persons, and it therefore believes the average cost of resolving pending and future claims on a per-claim basis will continue to be higher than it experienced in prior periods when the vast majority of claims were asserted by medically unimpaired claimants.

As previously reported, the State of West Virginia, through its Attorney General, filed a complaint in 2003 against the Company and two other manufacturers of respiratory protection products in the Circuit Court of Lincoln County, West Virginia, and amended its complaint in 2005. The amended complaint seeks substantial, but unspecified, compensatory damages primarily for reimbursement of the costs allegedly incurred by the State for worker's compensation and healthcare benefits provided to all workers with occupational pneumoconiosis and unspecified punitive damages. The case was inactive from the fourth quarter of 2007 until late 2013, other than a case management conference in March 2011. In November 2013, the State filed a motion to bifurcate the lawsuit into separate liability and damages proceedings. At the hearing on the motion, the court declined to bifurcate the lawsuit. No liability has been recorded for this matter because the Company believes that liability is not probable and estimable at this time. In addition, the Company is not able to estimate a possible loss or range of loss given the lack of any meaningful discovery responses by the State of West Virginia, the otherwise minimal activity in this case and the fact that the complaint asserts claims against two other manufacturers where a defendant's share of liability may turn on the law of joint and several liability and by the amount of fault, if any, a jury might allocate to each defendant if the case is ultimately tried.

Respirator Mask/Asbestos Liabilities and Insurance Receivables

The Company regularly conducts a comprehensive legal review of its respirator mask/asbestos liabilities. The Company reviews recent and historical claims data, including without limitation, (i) the number of pending claims filed against the Company, (ii) the nature and mix of those claims (i.e., the proportion of claims asserting usage of the Company's mask or respirator products and alleging exposure to each of asbestos, silica, coal or other occupational dusts, and claims pleading use of asbestos-containing products allegedly manufactured by the Company), (iii) the costs to defend and

resolve pending claims, and (iv) trends in filing rates and in costs to defend and resolve claims, (collectively, the “Claims Data”). As part of its comprehensive legal review, the Company regularly provides the Claims Data to a third party with expertise in determining the impact of Claims Data on future filing trends and costs. The third party assists the Company in estimating the costs to defend and resolve pending and future claims. The Company uses these estimates to develop its best estimate of probable liability.

Developments may occur that could affect the Company’s estimate of its liabilities. These developments include, but are not limited to, significant changes in (i) the key assumptions underlying the Company’s accrual, including, the number of future claims, the nature and mix of those claims, the average cost of defending and resolving claims, and in maintaining trial readiness (ii) trial and appellate outcomes, (iii) the law and procedure applicable to these claims, and (iv) the financial viability of other co-defendants and insurers.

As a result of the Company’s review of its respirator mask/asbestos liabilities and as a result of the cost of resolving claims of persons who claim more serious injuries, including mesothelioma and other malignancies, the Company increased its accruals in 2017 for respirator mask/asbestos liabilities by \$71 million. In 2017, the Company made payments for legal fees and settlements of \$58 million related to the respirator mask/asbestos litigation. As of December 31, 2017 and 2016, the Company had an accrual for respirator mask/asbestos liabilities (excluding Aearo accruals) of \$608 million and \$595 million, respectively. This accrual represents the Company’s best estimate of probable loss and reflects an estimation period for future claims that may be filed against the Company approaching the year 2050. The Company cannot estimate the amount or upper end of the range of amounts by which the liability may exceed the accrual the Company has established because of the (i) inherent difficulty in projecting the number of claims that have not yet been asserted or the time period in which future claims may be asserted, (ii) the complaints nearly always assert claims against multiple defendants where the damages alleged are typically not attributed to individual defendants so that a defendant’s share of liability may turn on the law of joint and several liability, which can vary by state, (iii) the multiple factors described above that the Company considers in estimating its liabilities, and (iv) the several possible developments described above that may occur that could affect the Company’s estimate of liabilities.

As of December 31, 2017, the Company’s receivable for insurance recoveries related to the respirator mask/asbestos litigation was \$4 million. The Company is seeking coverage under the policies of certain insolvent and other insurers. Once those claims for coverage are resolved, the Company will have collected substantially all of its remaining insurance coverage for respirator mask/asbestos claims.

Respirator Mask/Asbestos Litigation — Aearo Technologies

On April 1, 2008, a subsidiary of the Company purchased the stock of Aearo Holding Corp., the parent of Aearo Technologies (“Aearo”). Aearo manufactured and sold various products, including personal protection equipment, such as eye, ear, head, face, fall and certain respiratory protection products.

As of December 31, 2017, Aearo and/or other companies that previously owned and operated Aearo’s respirator business (American Optical Corporation, Warner-Lambert LLC, AO Corp. and Cabot Corporation (“Cabot”)) are named defendants, with multiple co-defendants, including the Company, in numerous lawsuits in various courts in which plaintiffs allege use of mask and respirator products and seek damages from Aearo and other defendants for alleged personal injury from workplace exposures to asbestos, silica-related, or other occupational dusts found in products manufactured by other defendants or generally in the workplace.

As a result of the review of Aearo’s respirator mask/asbestos liabilities, the Company increased Aearo’s accruals in 2017 for respirator mask/asbestos liabilities by \$13 million. As of December 31, 2017, the Company, through its Aearo subsidiary, had accruals of \$30 million for product liabilities and defense costs related to current and future Aearo-related asbestos and silica-related claims. This accrual represents the Company’s best estimate of Aearo’s probable loss and reflects an estimation period for future claims that may be filed against the Aearo approaching the year 2050. Responsibility for legal costs, as well as for settlements and judgments, is currently shared in an informal arrangement among Aearo, Cabot, American Optical Corporation and a subsidiary of Warner Lambert and their respective insurers (the “Payor Group”). Liability is allocated among the parties based on the number of years each company sold respiratory products under the “AO Safety” brand and/or owned the AO Safety Division of American Optical

Corporation and the alleged years of exposure of the individual plaintiff. Aearo's share of the contingent liability is further limited by an agreement entered into between Aearo and Cabot on July 11, 1995. This agreement provides that, so long as Aearo pays to Cabot a quarterly fee of \$100,000, Cabot will retain responsibility and liability for, and indemnify Aearo against, any product liability claims involving exposure to asbestos, silica, or silica products for respirators sold prior to July 11, 1995. Because of the difficulty in determining how long a particular respirator remains in the stream of commerce after being sold, Aearo and Cabot have applied the agreement to claims arising out of the alleged use of respirators involving exposure to asbestos, silica or silica products prior to January 1, 1997. With these arrangements in place, Aearo's potential liability is limited to exposures alleged to have arisen from the use of respirators involving exposure to asbestos, silica, or silica products on or after January 1, 1997. To date, Aearo has elected to pay the quarterly fee. Aearo could potentially be exposed to additional claims for some part of the pre-July 11, 1995 period covered by its agreement with Cabot if Aearo elects to discontinue its participation in this arrangement, or if Cabot is no longer able to meet its obligations in these matters.

In March 2012, Cabot CSC Corporation and Cabot Corporation filed a lawsuit against Aearo in the Superior Court of Suffolk County, Massachusetts seeking declaratory relief as to the scope of Cabot's indemnity obligations under the July 11, 1995 agreement, including whether Cabot has retained liability for coal workers' pneumoconiosis claims, and seeking damages for breach of contract. In 2014, the court granted Aearo's motion for summary judgment on two claims, but declined to rule on two issues: the specific liability for certain known coal mine dust lawsuits; and Cabot's claim for allocation of liability between injuries allegedly caused by exposure to coal mine dust and injuries allegedly caused by exposure to silica dust. Following additional discovery, the parties filed new motions for summary judgment. In February 2016, the court ruled in favor of Aearo on these two remaining issues, and ordered that Cabot, and not Aearo, is solely responsible for all liability for the coal mine dust lawsuits under the 1995 agreement. In May 2017, the Massachusetts Court of Appeals affirmed the trial court order in favor of Aearo.

Developments may occur that could affect the estimate of Aearo's liabilities. These developments include, but are not limited to: (i) significant changes in the number of future claims, (ii) significant changes in the average cost of resolving claims, (iii) significant changes in the legal costs of defending these claims, (iv) significant changes in the mix and nature of claims received, (v) trial and appellate outcomes, (vi) significant changes in the law and procedure applicable to these claims, (vii) significant changes in the liability allocation among the co-defendants, (viii) the financial viability of members of the Payor Group including exhaustion of available insurance coverage limits, and/or (ix) a determination that the interpretation of the contractual obligations on which Aearo has estimated its share of liability is inaccurate. The Company cannot determine the impact of these potential developments on its current estimate of Aearo's share of liability for these existing and future claims. If any of the developments described above were to occur, the actual amount of these liabilities for existing and future claims could be significantly larger than the amount accrued.

Because of the inherent difficulty in projecting the number of claims that have not yet been asserted, the complexity of allocating responsibility for future claims among the Payor Group, and the several possible developments that may occur that could affect the estimate of Aearo's liabilities, the Company cannot estimate the amount or range of amounts by which Aearo's liability may exceed the accrual the Company has established.

Environmental Matters and Litigation

The Company's operations are subject to environmental laws and regulations including those pertaining to air emissions, wastewater discharges, toxic substances, and the handling and disposal of solid and hazardous wastes enforceable by national, state, and local authorities around the world, and private parties in the United States and abroad. These laws and regulations provide, under certain circumstances, a basis for the remediation of contamination, for restoration of or compensation for damages to natural resources, and for personal injury and property damage claims. The Company has incurred, and will continue to incur, costs and capital expenditures in complying with these laws and regulations, defending personal injury and property damage claims, and modifying its business operations in light of its environmental responsibilities. In its effort to satisfy its environmental responsibilities and comply with environmental laws and regulations, the Company has established, and periodically updates, policies relating to environmental standards of performance for its operations worldwide.

Under certain environmental laws, including the United States Comprehensive Environmental Response, Compensation and Liability Act of 1980 and similar state laws, the Company may be jointly and severally liable, typically with other companies, for the costs of remediation of environmental contamination at current or former facilities and at off-site locations. The Company has identified numerous locations, most of which are in the United States, at which it may have some liability. Please refer to the section entitled “*Environmental Liabilities and Insurance Receivables*” that follows for information on the amount of the accrual.

Environmental Matters

As previously reported, the Company has been voluntarily cooperating with ongoing reviews by local, state, federal (primarily the U.S. Environmental Protection Agency (EPA)), and international agencies of possible environmental and health effects of various perfluorinated compounds, including perfluorooctanyl compounds such as perfluorooctanoate (“PFOA”), perfluorooctane sulfonate (“PFOS”), or similar compounds (“PFCs”). As a result of its phase-out decision in May 2000, the Company no longer manufactures perfluorooctanyl compounds. The company ceased manufacturing and using the vast majority of these compounds within approximately two years of the phase-out announcement, and ceased all manufacturing and the last significant use of this chemistry by the end of 2008. Through its ongoing life cycle management and its raw material composition identification processes associated with the Company’s policies covering the use of all persistent and bio-accumulative materials, the Company continues to control or eliminate the presence of certain PFCs in purchased materials or as byproducts in some of 3M’s fluorochemical manufacturing processes, products, and waste streams.

Regulatory activities concerning PFOA and/or PFOS continue in the United States, Europe and elsewhere, and before certain international bodies. These activities include gathering of exposure and use information, risk assessment, and consideration of regulatory approaches. As the database of studies of both PFOA and PFOS has expanded, the EPA has developed human health effects documents summarizing the available data from these studies. In February 2014, the EPA initiated external peer review of its draft human health effects documents for PFOA and PFOS. The peer review panel met in August 2014. In May 2016, the EPA announced lifetime health advisory levels for PFOA and PFOS at 70 parts per trillion (ppt) (superseding the provisional levels established by the EPA in 2009 of 400 ppt for PFOA and 200 ppt for PFOS). Where PFOA and PFOS are found together, EPA recommends that the concentrations be added together, and the lifetime health advisory for PFOA and PFOS combined is also 70 ppt. Lifetime health advisories, while not enforceable, serve as guidance and are benchmarks for determining if concentrations of chemicals in tap water from public utilities are safe for public consumption. In an effort to collect exposure information under the Safe Drinking Water Act, the EPA published on May 2, 2012 a list of unregulated substances, including six PFCs, required to be monitored during the period 2013-2015 by public water system suppliers to determine the extent of their occurrence. Through January 2017, the EPA reported results for 4,920 public water supplies nationwide. Based on the 2016 lifetime health advisory, 13 public water supplies exceed the level for PFOA and 46 exceed the level for PFOS (unchanged from the July 2016 EPA summary). A technical advisory issued by EPA in September 2016 on laboratory analysis of drinking water samples stated that 65 public water supplies had exceeded the combined level for PFOA and PFOS. These results are based on one or more samples collected during the period 2012-2015 and do not necessarily reflect current conditions of these public water supplies. EPA reporting does not identify the sources of the PFOA and PFOS in the public water supplies.

The Company is continuing to make progress in its work, under the supervision of state regulators, to address its historic disposal of PFC-containing waste associated with manufacturing operations at the Decatur, Alabama, Cottage Grove, Minnesota, and Cordova, Illinois plants. As previously reported, the Company entered into a voluntary remedial action agreement with the Alabama Department of Environmental Management (ADEM) to address the presence of PFCs in the soil at the Company’s manufacturing facility in Decatur, Alabama. Pursuant to a permit issued by ADEM, for approximately twenty years, the Company incorporated its wastewater treatment plant sludge containing PFCs in fields at its Decatur facility. After a review of the available options to address the presence of PFCs in the soil, ADEM agreed that the preferred remediation option is to use a multilayer cap over the former sludge incorporation areas on the manufacturing site with subsequent groundwater migration controls and treatment. Implementation of that plan continues and is expected to be completed in 2018.

The Company continues to work with the Minnesota Pollution Control Agency (MPCA) pursuant to the terms of the previously disclosed May 2007 Settlement Agreement and Consent Order to address the presence of certain PFCs in the soil and groundwater at former disposal sites in Washington County, Minnesota (Oakdale and Woodbury) and at the Company's manufacturing facility at Cottage Grove, Minnesota. Under this agreement, the Company's principal obligations include (i) evaluating releases of certain PFCs from these sites and proposing response actions; (ii) providing treatment or alternative drinking water upon identifying any level exceeding a Health Based Value ("HBV") or Health Risk Limit ("HRL") (i.e., the amount of a chemical in drinking water determined by the Minnesota Department of Health (MDH) to be safe for human consumption over a lifetime) for certain PFCs for which a HBV and/or HRL exists as a result of contamination from these sites; (iii) remediating identified sources of other PFCs at these sites that are not controlled by actions to remediate PFOA and PFOS; and (iv) sharing information with the MPCA about certain perfluorinated compounds. During 2008, the MPCA issued formal decisions adopting remedial options for the former disposal sites in Washington County, Minnesota (Oakdale and Woodbury). In August 2009, the MPCA issued a formal decision adopting remedial options for the Company's Cottage Grove manufacturing facility. During the spring and summer of 2010, 3M began implementing the agreed upon remedial options at the Cottage Grove and Woodbury sites. 3M commenced the remedial option at the Oakdale site in late 2010. At each location the remedial options were recommended by the Company and approved by the MPCA. Remediation work has been completed at the Oakdale and Woodbury sites, and they are in an operational maintenance mode. Remediation will continue at the Cottage Grove site during 2018.

In August 2014, the Illinois EPA approved a request by the Company to establish a groundwater management zone at its manufacturing facility in Cordova, Illinois, which includes ongoing pumping of impacted site groundwater, groundwater monitoring and routine reporting of results.

In May 2017, the MDH issued new HBVs for PFOS and PFOA. The new HBVs are 35 ppt for PFOA and 27 ppt for PFOS. In connection with its announcement, the MDH stated that "Drinking water with PFOA and PFOS, even at the levels above the updated values, does not represent an immediate health risk. These values are designed to reduce long-term health risks across the population and are based on multiple safety factors to protect the most vulnerable citizens, which makes them overprotective for most of the residents in our state." In December 2017, the MDH issued a new HBV for perfluorobutane sulfonate (PFBS) of 2 ppb.

The Company cannot predict what additional regulatory actions arising from the foregoing proceedings and activities, if any, may be taken regarding such compounds or the consequences of any such actions.

Alabama Environmental Litigation

As previously reported, a former employee filed a purported class action lawsuit in 2002 in the Circuit Court of Morgan County, Alabama (the "St. John case"), seeking unstated damages and alleging that the plaintiffs suffered fear, increased risk, subclinical injuries, and property damage from exposure to certain perfluorochemicals at or near the Company's Decatur, Alabama, manufacturing facility. The court in 2005 granted the Company's motion to dismiss the named plaintiff's personal injury-related claims on the basis that such claims are barred by the exclusivity provisions of the state's Workers Compensation Act. The plaintiffs' counsel filed an amended complaint in November 2006, limiting the case to property damage claims on behalf of a purported class of residents and property owners in the vicinity of the Decatur plant. In June 2015, the plaintiffs filed an amended complaint adding additional defendants, including BFI Waste Management Systems of Alabama, LLC; BFI Waste Management of North America, LLC; the City of Decatur, Alabama; Morgan County, Alabama; Municipal Utilities Board of Decatur; and Morgan County, Alabama, d/b/a Decatur Utilities.

In 2005, the judge -- in a second purported class action lawsuit filed by three residents of Morgan County, Alabama, seeking unstated compensatory and punitive damages involving alleged damage to their property from emissions of certain perfluorochemical compounds from the Company's Decatur, Alabama, manufacturing facility that formerly manufactured those compounds (the "Chandler case") -- granted the Company's motion to abate the case, effectively putting the case on hold pending the resolution of class certification issues in the St. John case. Despite the stay, plaintiffs filed an amended complaint seeking damages for alleged personal injuries and property damage on behalf of

the named plaintiffs and the members of a purported class. No further action in the case is expected unless and until the stay is lifted.

In February 2009, a resident of Franklin County, Alabama, filed a purported class action lawsuit in the Circuit Court of Franklin County (the “Stover case”) seeking compensatory damages and injunctive relief based on the application by the Decatur utility’s wastewater treatment plant of wastewater treatment sludge to farmland and grasslands in the state that allegedly contain PFOA, PFOS and other perfluorochemicals. The named plaintiff seeks to represent a class of all persons within the State of Alabama who have had PFOA, PFOS, and other perfluorochemicals released or deposited on their property. In March 2010, the Alabama Supreme Court ordered the case transferred from Franklin County to Morgan County. In May 2010, consistent with its handling of the other matters, the Morgan County Circuit Court abated this case, putting it on hold pending the resolution of the class certification issues in the St. John case.

In October 2015, West Morgan-East Lawrence Water & Sewer Authority (Water Authority) filed an individual complaint against 3M Company, Dyneon, L.L.C, and Daikin America, Inc., in the U.S. District Court for the Northern District of Alabama. The complaint also includes representative plaintiffs who brought the complaint on behalf of themselves, and a class of all owners and possessors of property who use water provided by the Water Authority and five local water works to which the Water Authority supplies water (collectively, the “Water Utilities”). The complaint seeks compensatory and punitive damages and injunctive relief based on allegations that the defendants’ chemicals, including PFOA and PFOS from their manufacturing processes in Decatur, have contaminated the water in the Tennessee River at the water intake, and that the chemicals cannot be removed by the water treatment processes utilized by the Water Authority. In September 2016, the court granted 3M’s motion to dismiss plaintiffs’ trespass claims with prejudice, negligence claims for personal injuries, and private nuisance claims, and denied the motion to dismiss the plaintiffs’ negligence claims for property damage, public nuisance, abatement of nuisance, battery and wantonness.

In June 2016, the Tennessee Riverkeeper, Inc. (Riverkeeper), a non-profit corporation, filed a lawsuit in the U.S. District Court for the Northern District of Alabama against 3M; BFI Waste Systems of Alabama; the City of Decatur, Alabama; and the Municipal Utilities Board of Decatur, Morgan County, Alabama. The complaint alleges that the defendants violated the Resource Conservation and Recovery Act in connection with the disposal of certain PFCs through their ownership and operation of their respective sites. The complaint further alleges such practices may present an imminent and substantial endangerment to health and/or the environment and that Riverkeeper has suffered and will continue to suffer irreparable harm caused by defendants’ failure to abate the endangerment unless the court grants the requested relief, including declaratory and injunctive relief.

In August 2016, a group of over 200 plaintiffs filed a class action against West Morgan-East Lawrence Water and Sewer Authority (Water Authority), 3M, Dyneon, Daikin, BFI, and the City of Decatur in state court in Lawrence County, Alabama. Plaintiffs are residents of Lawrence, Morgan and other counties who are or have been customers of the Water Authority. They contend defendants have released PFCs that contaminate the Tennessee River and, in turn, their drinking water, causing damage to their health and properties. In January 2017, the court in the St. John case, discussed above, stayed this litigation pending resolution of the St. John case.

In September 2016, the Water Works and Sewer Board of the City of Gadsden, Alabama filed a lawsuit in the Circuit Court of Etowah County Alabama against 3M and various carpet manufacturers. The complaint alleges that PFCs from the defendants’ facilities contaminated the Coosa River as its raw water source for drinking water and seeks unstated damages for the installation and operation of a filtration system, expenses to monitor PFC levels, and lost profits and sales.

In January 2017, several hundred plaintiffs sued 3M, its subsidiary Dyneon, and Daikin America in Lawrence and Morgan Counties, Alabama. The plaintiffs are owners of property, residents, and holders of property interests who receive their water from the West Morgan-East Lawrence Water and Sewer Authority (Water Authority). They assert common law claims for negligence, nuisance, trespass, wantonness, and battery, and they seek injunctive relief and punitive damages. The plaintiffs contend that the defendants own and operate manufacturing and disposal facilities in Decatur that have released and continue to release PFOA, PFOS and related chemicals into the groundwater and surface water of their sites, resulting in discharge into the Tennessee River. The plaintiffs also contend that the defendants have discharged into Bakers Creek and the Decatur Utilities Dry Creek Wastewater Treatment Plant, which, in turn,

discharges wastewater containing these chemicals into the Tennessee River. The plaintiffs contend that, as a result the alleged discharges, the water supplied by the Water Authority to the plaintiffs was, and is, contaminated with PFOA, PFOS, and related chemicals at a level dangerous to humans.

In May 2017, the Water Works and Sewer Board of the Town of Centre, Alabama filed a lawsuit in the Circuit Court of Cherokee County Alabama against 3M, DuPont, and various carpet and textile manufacturers. The complaint alleges that PFCs from the defendants' facilities contaminated the town's raw water source for drinking water and seeks unstated damages for the installation and operation of a filtration system, expenses to monitor PFC levels, lost profits and sales, and injunctive relief.

In November 2017, a purported class action was filed against 3M, its subsidiary Dyneon, Daikin America, and the West Morgan-East Lawrence Water and Sewer Authority (Water Authority) in the U.S. District Court for the Northern District of Alabama. The plaintiffs are residents of Lawrence and Morgan County, Alabama who receive their water from the Water Authority. They assert various common law claims, including negligence, nuisance, wantonness, and fraudulent concealment, and they seek injunctive relief, attorneys' fees, compensatory and punitive damages for their alleged personal injuries. The plaintiffs contend that the defendants own and operate manufacturing and disposal facilities in Decatur that have released and continue to release PFOA, PFOS and related chemicals into the groundwater and surface water of their sites, resulting in discharge into the Tennessee River. The plaintiffs also contend that the defendants have discharged into the Decatur Utilities Dry Creek Wastewater Treatment Plant, which, in turn, discharges wastewater containing these chemicals into the Tennessee River. The plaintiffs contend that, as a result the alleged discharges, the water supplied by the Water Authority to the plaintiffs was, and is, contaminated with PFOA, PFOS, and related chemicals at a level dangerous to humans.

Minnesota Environmental Litigation

In December 2010, the State of Minnesota, by its Attorney General Lori Swanson, acting in its capacity as trustee of the natural resources of the State of Minnesota, filed a lawsuit in Hennepin County District Court against 3M to recover damages (including unspecified assessment costs and reasonable attorney's fees) for alleged injury to, destruction of, and loss of use of certain of the State's natural resources under the Minnesota Environmental Response and Liability Act (MERLA) and the Minnesota Water Pollution Control Act (MWPCA), as well as statutory nuisance and common law claims of trespass, nuisance, and negligence with respect to the presence of PFCs in the groundwater, surface water, fish or other aquatic life, and sediments (the "NRD Lawsuit"). The State also seeks declarations under MERLA that 3M is responsible for all damages the State may suffer in the future for injuries to natural resources from releases of PFCs into the environment, and under MWPCA that 3M is responsible for compensation for future loss or destruction of fish, aquatic life, and other damages. In September 2017, the State's damages expert submitted a report that contends the State incurred \$5 billion in damages. In November 2017, the State of Minnesota filed a motion for leave to amend its complaint to seek punitive damages from 3M, and 3M filed a motion for summary judgment contending, among other things, that the State's claims are barred by the applicable statute of limitations. A hearing on those motions was held in December 2017. In December 2017, the court urged the parties to attempt to resolve the litigation before trial, and in January 2018, the court appointed a mediator to facilitate that process. If the parties are not able to resolve the matter, the trial is scheduled to begin in February 2018. An adverse ruling or judgment, settlement, or unfavorable development in the NRD Lawsuit could result in future charges that could have a material adverse effect on the Company's results of operations or cash flows in the period in which they are recorded and on the consolidated financial position of the Company. No liability has been recorded because the Company believes any such liability is not probable and estimable.

In November 2011, the Metropolitan Council filed a motion to intervene and a complaint in the NRD Lawsuit seeking compensatory damages and other legal, declaratory and equitable relief, including reasonable attorneys' fees, for costs and fees that the Metropolitan Council alleges it will be required to assess at some time in the future if the MPCA imposes restrictions on Metropolitan Council's PFOS discharges to the Mississippi River, including the installation and maintenance of a water treatment system. The Metropolitan Council's intervention motion was based on several theories, including common law negligence, and statutory claims under MERLA for response costs, and under the Minnesota Environmental Rights Act (MERA) for declaratory and equitable relief against 3M for PFOS and other PFC pollution of the waters and sediments of the Mississippi River. 3M did not object to the motion to intervene. In January 2012, 3M answered the Metropolitan Council's complaint and filed a counterclaim alleging that the Metropolitan Council

discharges PFCs to the Mississippi River and discharges PFC-containing sludge and bio solids from one or more of its wastewater treatment plants onto agricultural lands and local area landfills. Accordingly, 3M's complaint against the Metropolitan Council asked that if the court finds that the State is entitled to any of the damages it sought, 3M be awarded contribution and apportionment from the Metropolitan Council, including attorneys' fees, under MERLA, and contribution from and liability for the Metropolitan Council's proportional share of damages awarded to the State under the MWPCA, as well as under statutory nuisance and common law theories of trespass, nuisance, and negligence. 3M also sought declaratory relief under MERA. In May 2017, the Metropolitan Council paid 3M approximately \$1 million and agreed to dismiss its claims against 3M. As part of the settlement agreement, 3M agreed to dismiss its claims against the Metropolitan Council.

In April 2012, 3M filed a motion to disqualify the State of Minnesota's counsel, Covington & Burling, LLP (Covington). In October 2012, the court granted 3M's motion to disqualify Covington as counsel to the State, and the State and Covington appealed the court's disqualification to the Minnesota Court of Appeals. In July 2013, the Minnesota Court of Appeals affirmed the district court's disqualification order. In October 2013, the Minnesota Supreme Court granted both the State's and Covington's petition for review of the decision of the Minnesota Court of Appeals. In April 2014, the Minnesota Supreme Court affirmed in part, reversed in part, and remanded the case to the district court for further proceedings. The district court took evidence on the disqualification issues at a hearing in October 2015. In February 2016, the district court ruled that Covington violated the professional ethics rule against representing a client (here the State of Minnesota) in the same or substantially related matter where that person's interests are materially adverse to the interests of a former client (3M). The district court, however, denied 3M's motion to disqualify Covington because it further found that 3M impliedly waived by delaying to assert the conflict. Other activity in the case, which had been stayed pending the outcome of the disqualification issue, has resumed. Trial of the NRD Lawsuit is scheduled to begin in February 2018. In a separate but related action, the Company filed suit in the Ramsey County District Court against Covington for breach of its fiduciary duties to the Company and for breach of contract arising out of Covington's representation of the State of Minnesota in the NRD Lawsuit. In September 2016, the court granted 3M's motion for leave to amend the complaint to plead punitive damages. In February 2017, Covington settled this lawsuit with a payment by Covington or its insurer to 3M that is not material to 3M's results of operations or financial condition.

In July 2016, the City of Lake Elmo filed a lawsuit in the U.S. District Court for the District of Minnesota against 3M alleging that the City suffered damages from drinking water supplies contaminated with PFCs, including costs to construct alternative sources of drinking water. Trial is scheduled to begin in September 2019.

Aqueous Film Forming Foam (AFFF) Litigation

3M manufactured and marketed Aqueous Film Forming Foam (AFFF) for use in firefighting at airports and military bases from approximately 1963 to 2000. As of December 31, 2017, twelve purported class actions have been filed against 3M and other defendants in various state and federal courts in Pennsylvania, Colorado, and New York alleging that certain PFCs used in AFFF contaminated the soil and groundwater where AFFF was used at current or former airports and air force military bases located in Colorado, Pennsylvania, and New York. An individual complaint also has been filed in federal court Pennsylvania. The plaintiffs in these cases generally allege that contaminated groundwater has caused various injuries, including loss of use and enjoyment of their properties, diminished property values, investigation costs, and remediation costs. Some cases seek funds for medical monitoring. Several companies have been sued along with 3M, including Ansul Co. (acquired by Tyco, Inc.), Angus Fire, Buckeye Fire Protection Co., Chemguard, National Foam, Inc., United Technologies Corp.

In November 2016, the Town of Barnstable, MA filed an individual action in the U.S. District Court for the District of Massachusetts seeking unstated compensatory and punitive damages and other relief against 3M and other suppliers of AFFF for alleged contamination of the aquifer supplying drinking water to the Hyannis water system. The town seeks to recover costs associated with the investigation, treatment, remediation, and monitoring of drinking water supplies allegedly contaminated with certain PFCs used in AFFF. In January 2017, the County of Barnstable, MA, filed an individual action in the U.S. District Court for the District of Massachusetts seeking unstated compensatory and punitive damages and other relief (including indemnification and contribution in connection with claims asserted against the County by the Town of Barnstable) against 3M and other suppliers of AFFF for alleged contamination of the aquifer supplying drinking water to the Hyannis water system.

In February 2017, husband and wife plaintiffs sued 3M and other defendants in federal court in Pennsylvania, alleging personal injury, loss of consortium and companionship, and associated damages.

In March 2017, plaintiff residents of Suffolk County, Long Island filed a class action complaint in state court in Suffolk County New York, naming the County and 3M and other alleged manufacturers of AFFF products. The action was removed to the Eastern District of New York.

In August 2017, three class action complaints were filed in state court in New York against 3M and other defendants including the Port Authority of New York and New Jersey. Plaintiffs allege PFC contamination of the local water supply linked to AFFF at Stewart Air National Guard Base and Stewart International Airport. The Port Authority is the leaseholder of the airport. All three cases have classes for diminution of property and medical monitoring. In September 2017, co-defendant Tyco removed all three cases to the U.S. District Court for the Southern District of New York.

In October 2017, a class action complaint was filed in Suffolk County, New York against 3M and others regarding PFCs allegedly released at the Suffolk County Firematics Training Facility. In November 2017, co-defendant National Foam removed the case to the U.S. District Court for the Eastern District of New York.

In December 2017, a complaint was filed by a group of 26 plaintiffs in Suffolk County, New York against 3M and others regarding PFCs allegedly released at Gabreski Airport.

In December 2017, a complaint was filed by the Suffolk County Water District in December 2017 in the U.S. District Court for the Eastern District of New York against 3M and others regarding PFCs allegedly released at Gabreski Airport and Suffolk County Firematics Training Facility.

Other Environmental Litigation

In September 2017, three complaints were filed in the U.S. District Court for the Northern District of New York against 3M, Saint-Gobain Performance Plastics Corp. (“Saint-Gobain”), Honeywell International Inc. (“Honeywell”) and E.I. DuPont De Nemours and Company. Plaintiffs allege that 3M manufactured and sold PFOA that was used for manufacturing purposes at Saint-Gobain’s and Honeywell’s facilities located in the Village of Hoosick Falls and the Town of Hoosick. Plaintiffs claim that the drinking water around Hoosick Falls became contaminated with unsafe levels of PFOA due to the activities of the defendants, and allege that they suffered bodily injury due to the ingestion and inhalation of PFOA. Plaintiffs seek unstated compensatory, consequential, and punitive damages, as well as attorneys’ fees and costs.

On December 1, 2017, eight plaintiffs filed a 12-count class action against 3M, Wolverine World Wide and Waste Management, Inc., alleging negligence, trespass, intentional and negligent infliction of emotional distress, battery, products liability, public and private nuisance, fraudulent concealment, and unjust enrichment. Each count was filed against each defendant. The action arises from Wolverine’s allegedly improper disposal of materials and wastes related to their shoe manufacturing operations. Plaintiffs allege Wolverine used 3M Scotchgard in its manufacturing process and that chemicals from 3M’s product have contaminated the environment after being disposed of near drinking water sources.

For environmental litigation matters described in this section for which a liability, if any, has been recorded, the Company believes the amount recorded, as well as the possible loss or range of loss in excess of the established accrual is not material to the Company’s consolidated results of operations or financial condition. For those matters for which a liability has not been recorded, the Company believes any such liability is not probable and estimable and the Company is not able to estimate a possible loss or range of loss at this time.

Environmental Liabilities and Insurance Receivables

As of December 31, 2017, the Company had recorded liabilities of \$28 million for estimated “environmental remediation” costs based upon an evaluation of currently available facts with respect to each individual site and also

recorded related insurance receivables of \$8 million. The Company records liabilities for remediation costs on an undiscounted basis when they are probable and reasonably estimable, generally no later than the completion of feasibility studies or the Company's commitment to a plan of action. Liabilities for estimated costs of environmental remediation, depending on the site, are based primarily upon internal or third-party environmental studies, and estimates as to the number, participation level and financial viability of any other potentially responsible parties, the extent of the contamination and the nature of required remedial actions. The Company adjusts recorded liabilities as further information develops or circumstances change. The Company expects that it will pay the amounts recorded over the periods of remediation for the applicable sites, currently ranging up to 20 years.

As of December 31, 2017, the Company had recorded liabilities of \$25 million for "other environmental liabilities" based upon an evaluation of currently available facts to implement the Settlement Agreement and Consent Order with the MPCA, the remedial action agreement with ADEM, and to address trace amounts of perfluorinated compounds in drinking water sources in the City of Oakdale, Minnesota, as well as presence in the soil and groundwater at the Company's manufacturing facilities in Decatur, Alabama, and Cottage Grove, Minnesota, and at two former disposal sites in Washington County, Minnesota (Oakdale and Woodbury). The Company expects that most of the spending will occur over the next four years. During the first quarter of 2017, the Company collected from its insurer the outstanding receivable of \$15 million related to "other environmental liabilities."

It is difficult to estimate the cost of environmental compliance and remediation given the uncertainties regarding the interpretation and enforcement of applicable environmental laws and regulations, the extent of environmental contamination and the existence of alternative cleanup methods. Developments may occur that could affect the Company's current assessment, including, but not limited to: (i) changes in the information available regarding the environmental impact of the Company's operations and products; (ii) changes in environmental regulations, changes in permissible levels of specific compounds in drinking water sources, or changes in enforcement theories and policies, including efforts to recover natural resource damages; (iii) new and evolving analytical and remediation techniques; (iv) success in allocating liability to other potentially responsible parties; and (v) the financial viability of other potentially responsible parties and third-party indemnitors. For sites included in both "environmental remediation liabilities" and "other environmental liabilities," at which remediation activity is largely complete and remaining activity relates primarily to operation and maintenance of the remedy, including required post-remediation monitoring, the Company believes the exposure to loss in excess of the amount accrued would not be material to the Company's consolidated results of operations or financial condition. However, for locations at which remediation activity is largely ongoing, the Company cannot estimate a possible loss or range of loss in excess of the associated established accruals for the reasons described above.

Other Matters

Department of Labor Investigation

The U.S. Department of Labor (DOL) notified 3M in April 2015 that it had commenced an investigation of 3M's pension plan pursuant to the federal Employee Retirement Income Security Act of 1974, as amended (ERISA). The DOL has stated its investigation relates to certain private equity investments, plan expenses, securities lending, and distributions of plan benefits. In response to certain DOL requests, 3M produced documents and made employees available for interviews. In December 2016, the DOL issued certain subpoenas to 3M and 3M Investment Management Corp. relating to this investigation. 3M has produced additional responsive documents and is cooperating with the DOL in its investigation. 3M anticipates that the DOL will conclude its investigation in the first half of 2018.

Product Liability Litigation

One customer obtained an order in the French courts against 3M Purification SAS (a French subsidiary) in October 2011 appointing an expert to determine the amount of commercial loss and property damage allegedly caused by allegedly defective 3M filters used in the customer's manufacturing process. An Austrian subsidiary of this same customer also filed a claim against 3M Austria GmbH (an Austrian subsidiary) and 3M Purification SAS in the Austrian courts in September 2012 seeking damages for the same issue. The Company reached an agreement in principle to settle those

two cases and finalized the settlement during the second quarter of 2017. The amounts agreed to in each of these settlements were not material to the Company's consolidated results of operations or financial condition.

As of December 31, 2017, the Company is a named defendant in lawsuits involving approximately 4,270 plaintiffs (compared to approximately 1,260 plaintiffs at December 31, 2016), most of which are pending in federal or state court in Minnesota, in which the plaintiffs claim they underwent various joint arthroplasty, cardiovascular, and other surgeries and later developed surgical site infections due to the use of the Bair Hugger™ patient warming system. The complaints seek damages and other relief based on theories of strict liability, negligence, breach of express and implied warranties, failure to warn, design and manufacturing defect, fraudulent and/or negligent misrepresentation/concealment, unjust enrichment, and violations of various state consumer fraud, deceptive or unlawful trade practices and/or false advertising acts. One case, from the U.S. District Court for the Western District of Tennessee is a putative nationwide class action. The U.S. Judicial Panel on Multidistrict Litigation (MDL) granted the plaintiffs' motion to transfer and consolidate all cases pending in federal courts to the U.S. District Court for the District of Minnesota to be managed in a multi-district proceeding during the pre-trial phase of the litigation. The federal court has set a trial-ready date in May 2018 in one of the two federal court bellwether cases. At a joint hearing before the U.S. District Court and the Minnesota State court, on the parties' motion to exclude each other's experts, and 3M's motion for summary judgment with respect to general causation, the federal court did not exclude the plaintiffs' experts and denied 3M's motion for summary judgment on general causation. In January 2018, the state court, in hearing the same arguments, excluded plaintiffs' experts and granted 3M's motion for summary judgment on general causation, dismissing all 61 cases pending before the state court in Minnesota.

In June 2016, the Company was served with a putative class action filed in the Ontario Superior Court of Justice for all Canadian residents who underwent various joint arthroplasty, cardiovascular, and other surgeries and later developed surgical site infections due to the use of the Bair Hugger™ patient warming system. The representative plaintiff seeks relief (including punitive damages) under Canadian law based on theories similar to those asserted in the MDL. The Bair Hugger™ product line was acquired by 3M as part of the 2010 acquisition of Arizant, Inc., a leading manufacturer of patient warming solutions designed to prevent hypothermia and maintain normal body temperature in surgical settings. No liability has been recorded for this matter because the Company believes that any such liability is not probable and estimable at this time.

In September 2011, 3M Oral Care launched Lava Ultimate CAD/CAM dental restorative material. The product was originally indicated for inlay, onlay, veneer, and crown applications. In June 2015, 3M Oral Care voluntarily removed crown applications from the product's instructions for use, following reports from dentists of patients' crowns debonding, requiring additional treatment. The product remains on the market for other applications. 3M communicated with the U.S. Food and Drug Administration, as well as regulators outside the United States. 3M also informed customers and distributors of its action, offered to accept return of unused materials and provide refunds. As of December 31, 2017, there is one lawsuit pending in the U.S. District Court for the District of Minnesota that names 29 plaintiffs and seeks certification of a class of dentists in the United States and its territories, and alternatively seeks subclasses in 13 states. The complaint alleges 3M marketed and sold defective Lava Ultimate material used for dental crowns to dentists and, under various theories, seek monetary damages (replacement costs and business reputation loss), punitive damages, disgorgement of profits, injunction from marketing and selling Lava Ultimate for use in dental crowns, statutory penalties, and attorneys' fees and costs.

For product liability litigation matters described in this section for which a liability has been recorded, the Company believes the amount recorded is not material to the Company's consolidated results of operations or financial condition. In addition, the Company is not able to estimate a possible loss or range of loss in excess of the established accruals at this time.

NOTE 16. Stock-Based Compensation

The 3M 2016 Long-Term Incentive Plan (LTIP) provides for the issuance or delivery of up to 123,965,000 shares of 3M common stock pursuant to awards granted under the plan. Awards may be issued in the form of incentive stock options, nonqualified stock options, progressive stock options, stock appreciation rights, restricted stock, restricted stock units, other stock awards, and performance units and performance shares. As of December 31, 2017, the remaining total shares

available for grant under the LTIP Program are 30,125,144, and there were approximately 7,500 participants with outstanding options, restricted stock, or restricted stock units.

The Company's annual stock option and restricted stock unit grant is made in February to provide a strong and immediate link between the performance of individuals during the preceding year and the size of their annual stock compensation grants. The grant to eligible employees uses the closing stock price on the grant date. Accounting rules require recognition of expense under a non-substantive vesting period approach, requiring compensation expense recognition when an employee is eligible to retire. Employees are considered eligible to retire at age 55 and after having completed ten years of service. This retiree-eligible population represents 35 percent of the 2017 annual stock-based compensation award expense dollars; therefore, higher stock-based compensation expense is recognized in the first quarter.

In addition to the annual grants, the Company makes other minor grants of stock options, restricted stock units and other stock-based grants. The Company issues cash settled restricted stock units and stock appreciation rights in certain countries. These grants do not result in the issuance of common stock and are considered immaterial for disclosure purposes by the Company.

Beginning in 2016, as a result of the Company's application of ASU No. 2016-09, *Improvements to Employee Share-Based Payment Accounting*, certain excess tax benefits at the time of exercise (for an option) or upon vesting (for restricted stock units) are recognized as income tax benefits in the statement of income. These amounts totaled \$228 million and \$184 million for 2017 and 2016, respectively, and are reflected in the "income tax benefits" line within the stock-based compensation table below.

Amounts recognized in the financial statements with respect to stock-based compensation programs, which include stock options, restricted stock, restricted stock units, performance shares, and the General Employees' Stock Purchase Plan (GESPP), are provided in the following table. Capitalized stock-based compensation amounts were not material.

Stock-Based Compensation Expense

(Millions)	Years ended December 31		
	2017	2016	2015
Cost of sales	\$ 49	\$ 47	\$ 46
Selling, general and administrative expenses	229	206	185
Research, development and related expenses	46	45	45
Stock-based compensation expenses	\$ 324	\$ 298	\$ 276
Income tax benefits	\$ (327)	\$ (272)	\$ (87)
Stock-based compensation expenses (benefits), net of tax	\$ (3)	\$ 26	\$ 189

Stock Option Program

The following table summarizes stock option activity for the years ended December 31:

	2017		2016		2015	
	Number of Options	Weighted Average Exercise Price	Number of Options	Weighted Average Exercise Price	Number of Options	Weighted Average Exercise Price
Under option —						
January 1	36,196,232	\$ 112.07	38,552,445	\$ 102.01	39,235,557	\$ 90.38
Granted:						
Annual	5,409,628	175.93	5,591,727	147.99	5,529,544	165.91
Exercised	(6,474,117)	90.37	(7,716,141)	86.76	(5,978,382)	83.74
Forfeited	(166,579)	162.36	(231,799)	148.43	(234,274)	128.99
December 31	34,965,164	\$ 125.73	36,196,232	\$ 112.07	38,552,445	\$ 102.01
Options exercisable						
December 31	24,281,464	\$ 108.50	25,240,759	\$ 95.65	27,262,062	\$ 85.97

Stock options vest over a period from one to three years with the expiration date at 10 years from date of grant. As of December 31, 2017, there was \$67 million of compensation expense that has yet to be recognized related to non-vested stock option based awards. This expense is expected to be recognized over the remaining weighted-average vesting period of 20 months. For options outstanding at December 31, 2017, the weighted-average remaining contractual life was 70 months and the aggregate intrinsic value was \$3.834 billion. For options exercisable at December 31, 2017, the weighted-average remaining contractual life was 56 months and the aggregate intrinsic value was \$3.080 billion.

The total intrinsic values of stock options exercised during 2017, 2016 and 2015 was \$703 million, \$608 million and \$465 million, respectively. Cash received from options exercised during 2017, 2016 and 2015 was \$585 million, \$665 million and \$501 million, respectively. The Company's actual tax benefits realized for the tax deductions related to the exercise of employee stock options for 2017, 2016 and 2015 was \$238 million, \$224 million and \$172 million, respectively.

The Company does not have a specific policy to repurchase common shares to mitigate the dilutive impact of options; however, the Company has historically made adequate discretionary purchases, based on cash availability, market trends, and other factors, to satisfy stock option exercise activity.

For annual options, the weighted average fair value at the date of grant was calculated using the Black-Scholes option-pricing model and the assumptions that follow.

Stock Option Assumptions

	Annual		
	2017	2016	2015
Exercise price	\$ 175.76	\$ 147.87	\$ 165.94
Risk-free interest rate	2.1 %	1.5 %	1.5 %
Dividend yield	2.5 %	2.5 %	2.5 %
Expected volatility	17.3 %	20.8 %	20.1 %
Expected life (months)	78	77	76
Black-Scholes fair value	\$ 23.51	\$ 22.47	\$ 23.98

Expected volatility is a statistical measure of the amount by which a stock price is expected to fluctuate during a period. For the 2017 annual grant date, the Company estimated the expected volatility based upon the average of the most recent one year volatility, the median of the term of the expected life rolling volatility, the median of the most recent term of the expected life volatility of 3M stock, and the implied volatility on the grant date. The expected term assumption is based on the weighted average of historical grants.

Restricted Stock and Restricted Stock Units

The following table summarizes restricted stock and restricted stock unit activity for the years ended December 31:

	2017		2016		2015	
	Number of Awards	Weighted Average Grant Date Fair Value	Number of Awards	Weighted Average Grant Date Fair Value	Number of Awards	Weighted Average Grant Date Fair Value
Nonvested balance —						
As of January 1	2,185,046	\$ 145.64	2,441,088	\$ 127.47	2,817,786	\$ 104.41
Granted						
Annual	604,256	176.10	749,068	148.20	671,204	165.86
Other	20,692	233.77	8,115	169.00	26,886	156.94
Vested	(769,598)	127.21	(960,345)	101.64	(1,010,612)	89.99
Forfeited	(46,590)	158.25	(52,880)	145.95	(64,176)	118.99
As of December 31	1,993,806	\$ 162.60	2,185,046	\$ 145.64	2,441,088	\$ 127.47

As of December 31, 2017, there was \$78 million of compensation expense that has yet to be recognized related to non-vested restricted stock and restricted stock units. This expense is expected to be recognized over the remaining weighted-average vesting period of 22 months. The total fair value of restricted stock and restricted stock units that vested during 2017, 2016 and 2015 was \$136 million, \$149 million and \$166 million, respectively. The Company's actual tax benefits realized for the tax deductions related to the vesting of restricted stock and restricted stock units for 2017, 2016 and 2015 was \$45 million, \$56 million and \$62 million, respectively.

Restricted stock units granted generally vest three years following the grant date assuming continued employment. Dividend equivalents equal to the dividends payable on the same number of shares of 3M common stock accrue on these restricted stock units during the vesting period, although no dividend equivalents are paid on any of these restricted stock units that are forfeited prior to the vesting date. Dividends are paid out in cash at the vest date on restricted stock units, except for performance shares which do not earn dividends. Since the rights to dividends are forfeitable, there is no impact on basic earnings per share calculations. Weighted average restricted stock unit shares outstanding are included in the computation of diluted earnings per share.

Performance Shares

Instead of restricted stock units, the Company makes annual grants of performance shares to members of its executive management. The 2017 performance criteria for these performance shares (organic volume growth, return on invested capital, free cash flow conversion, and earnings per share growth) were selected because the Company believes that they are important drivers of long-term stockholder value. The number of shares of 3M common stock that could actually be delivered at the end of the three-year performance period may be anywhere from 0% to 200% of each performance share granted, depending on the performance of the Company during such performance period. Non-substantive vesting requires that expense for the performance shares be recognized over one or three years depending on when each individual became a 3M executive. Prior to the 2016 performance share grant, performance shares did not accrue dividends during the performance period. Therefore, the grant date fair value was determined by reducing the closing stock price on the date of grant by the net present value of dividends during the performance period. The 2017 and 2016 performance share grants accrue dividends, therefore the grant date fair value is equal to the closing stock price on the date of grant. Since the rights to dividends are forfeitable, there is no impact on basic earnings per share calculations. Weighted average performance shares whose performance period is complete are included in computation of diluted earnings per share.

The following table summarizes performance share activity for the years ended December 31:

	2017		2016		2015	
	Number of Awards	Weighted Average Grant Date Fair Value	Number of Awards	Weighted Average Grant Date Fair Value	Number of Awards	Weighted Average Grant Date Fair Value
Undistributed balance —						
As of January 1	656,278	\$ 142.98	871,192	\$ 120.89	1,099,752	\$ 102.65
Granted	201,261	191.28	219,431	160.17	227,798	158.88
Distributed	(313,942)	124.88	(367,428)	99.06	(323,938)	83.08
Performance change	154,774	173.91	(37,534)	155.98	(106,760)	127.70
Forfeited	(12,498)	171.36	(29,383)	149.08	(25,660)	125.33
As of December 31	685,873	\$ 171.90	656,278	\$ 142.98	871,192	\$ 120.89

As of December 31, 2017, there was \$25 million of compensation expense that has yet to be recognized related to performance shares. This expense is expected to be recognized over the remaining weighted-average earnings period of 11 months. The total fair value of performance shares that were distributed were \$55 million for 2017 and \$54 million for both 2016 and 2015. The Company's actual tax benefits realized for the tax deductions related to the distribution of performance shares was \$15 million per year for 2017, 2016 and 2015.

General Employees' Stock Purchase Plan (GESPP):

As of December 31, 2017, shareholders have approved 60 million shares for issuance under the Company's GESPP. Substantially all employees are eligible to participate in the plan. Participants are granted options at 85% of market value at the date of grant. There are no GESPP shares under option at the beginning or end of each year because options are granted on the first business day and exercised on the last business day of the same month.

General Employees' Stock Purchase Plan

	2017		2016		2015	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Options granted	877,705	\$ 170.42	987,478	\$ 140.06	1,007,669	\$ 133.52
Options exercised	(877,705)	170.42	(987,478)	140.06	(1,007,669)	133.52
Shares available for grant - December 31	26,239,152		27,116,857		28,104,335	

The weighted-average fair value per option granted during 2017, 2016 and 2015 was \$30.07, \$24.72 and \$23.56, respectively. The fair value of GESPP options was based on the 15% purchase price discount. The Company recognized compensation expense for GESPP options of \$26 million in 2017, \$24 million in 2016 and \$24 million in 2015.

NOTE 17. Business Segments

3M's businesses are organized, managed and internally grouped into segments based on differences in markets, products, technologies and services. 3M manages its operations in five business segments: Industrial; Safety and Graphics; Health Care; Electronics and Energy; and Consumer. 3M's five business segments bring together common or related 3M technologies, enhancing the development of innovative products and services and providing for efficient sharing of business resources. Transactions among reportable segments are recorded at cost. 3M is an integrated enterprise characterized by substantial intersegment cooperation, cost allocations and inventory transfers. Therefore, management does not represent that these segments, if operated independently, would report the operating income information shown. The difference between operating income and pre-tax income relates to interest income and interest expense, which are not allocated to business segments, along with non-service cost related pension and postretirement net periodic benefit costs.

As part of 3M's continuing effort to improve the alignment of its businesses around markets and customers, the Company made the following changes, effective in the first quarter of 2018, and other revisions impacting business segment reporting:

Consolidation of customer account activity within international countries – expanding dual credit reporting

- The Company consolidated its customer account activity in each country into centralized sales districts for certain countries that make up approximately 70 percent of 3M's 2017 international net sales. Expansion of these initiatives, which previously had been deployed only in the U.S., reduces the complexity for customers when interacting with multiple 3M businesses. 3M business segment reporting measures include dual credit to business segments for certain sales and related operating income. This dual credit is based on which business segment provides customer account activity with respect to a particular product sold in a specific country. The expansion of alignment of customer accounts within additional countries increased the attribution of dual credit across 3M's business segments. Additionally, certain sales and operating income results for electronic bonding product lines that were previously equally divided between the Electronics and Energy business segment and the Industrial business segment are now reported similarly to dual credit. As a result, previously reported aggregate business segment net sales and operating income for total year 2017 increased \$1.568 billion and \$402 million, respectively, offset by similar increases in the elimination of dual credit net sales and operating income amounts.

Centralization of manufacturing and supply technology platforms

- Certain shared film manufacturing and supply technology platform resources formerly reflected within the Electronics and Energy business segment were combined with other shared and centrally managed material resource centers of expertise within Corporate and Unallocated. This change resulted in a decrease in previously reported net sales and an increase in operating income for total year 2017 of \$1 million and \$42 million, respectively, in the Electronics and Energy segment, offset by a corresponding increase in net sales and decrease in operating income within Corporate and Unallocated.

In addition, as discussed in Note 1, 3M adopted ASU N0. 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*, effective January 1, 2018 on a retrospective basis. As a result, operating income for 3M's business segments has been revised to reflect non-service cost related pension and postretirement net periodic benefit costs within other expense (income), net.

The financial information presented herein reflects the impact of the preceding changes for all periods presented.

Business Segment Products

Business Segment	Major Products
Industrial	Tapes, coated, nonwoven and bonded abrasives, adhesives, advanced ceramics, sealants, specialty materials, filtration products, closure systems for personal hygiene products, acoustic systems products, automotive components, abrasion-resistant films, structural adhesives and paint finishing and detailing products
Safety and Graphics	Personal protection products, transportation safety products, commercial graphics systems, commercial cleaning and protection products, floor matting, roofing granules for asphalt shingles, and fall protection products
Health Care	Medical and surgical supplies, skin health and infection prevention products, drug delivery systems, dental and orthodontic products, health information systems and food safety products
Electronics and Energy	Optical films solutions for electronic displays, packaging and interconnection devices, insulating and splicing solutions for the electronics, telecommunications and electrical industries, touch screens and touch monitors, renewable energy component solutions, and infrastructure protection products
Consumer	Sponges, scouring pads, high-performance cloths, consumer and office tapes, repositionable notes, indexing systems, home improvement products, home care products, protective material products, and consumer and office tapes and adhesives

Business Segment Information

(Millions)	Net Sales			Operating Income		
	2017	2016	2015	2017	2016	2015
Industrial	\$ 11,866	\$ 11,217	\$ 11,243	\$ 2,490	\$ 2,528	\$ 2,498
Safety and Graphics	6,235	5,948	5,808	2,066	1,403	1,359
Health Care	5,853	5,606	5,490	1,764	1,731	1,749
Electronics and Energy	5,501	4,926	5,398	1,377	1,145	1,171
Consumer	4,731	4,578	4,518	1,004	1,054	1,074
Corporate and Unallocated	3	6	4	(395)	(321)	(361)
Elimination of Dual Credit	(2,532)	(2,172)	(2,187)	(614)	(513)	(510)
Total Company	\$ 31,657	\$ 30,109	\$ 30,274	\$ 7,692	\$ 7,027	\$ 6,980

(Millions)	Assets			Depreciation & Amortization			Capital Expenditures		
	2017	2016	2015	2017	2016	2015	2017	2016	2015
Industrial	\$ 9,895	\$ 9,140	\$ 9,205	\$ 432	\$ 407	\$ 374	\$ 381	\$ 360	\$ 317
Safety and Graphics	9,874	7,626	7,709	275	277	258	184	228	207
Health Care	4,757	4,293	4,391	175	175	179	137	136	168
Electronics and Energy	4,291	4,335	4,530	240	223	275	152	187	202
Consumer	2,706	2,497	2,386	112	114	108	109	109	124
Corporate and Unallocated	6,464	5,015	4,662	310	278	241	410	400	443
Total Company	\$ 37,987	\$ 32,906	\$ 32,883	\$ 1,544	\$ 1,474	\$ 1,435	\$ 1,373	\$ 1,420	\$ 1,461

The Company revised amounts previously presented in the table above relative to the depreciation and amortization expense and capital expenditures for the year ended December 31, 2017. This immaterial revision resulted in a decrease in previously reported depreciation and amortization expense for total year 2017 of \$71 million in the Health Care business segment, offset by a corresponding increase in depreciation and amortization expense within the Electronics and Energy business segment. In addition, this immaterial revision resulted in a decrease in previously reported capital expenditures for total year 2017 of \$54 million in the Industrial business segment, offset by a corresponding increase in capital expenditures within the Health Care business segment. This revision had no impact on the Company's consolidated results of operations, financial condition, or cash flows.

Corporate and unallocated operating income includes a variety of miscellaneous items, such as corporate investment gains and losses, certain derivative gains and losses, certain insurance-related gains and losses, certain litigation and environmental expenses, corporate restructuring charges and certain under- or over-absorbed costs (e.g. pension, stock-based compensation) that the Company may choose not to allocate directly to its business segments. Because this category includes a variety of miscellaneous items, it is subject to fluctuation on a quarterly and annual basis.

3M business segment reporting measures include dual credit to business segments for certain sales and related operating income. Management evaluates each of its five business segments based on net sales and operating income performance, including dual credit reporting to further incentivize sales growth. As a result, 3M reflects additional (“dual”) credit to another business segment when the customer account activity (“sales district”) with respect to the particular product sold to the external customer is provided by a different business segment. This additional dual credit is largely reflected at the division level. For example, certain respirators are primarily sold by the Personal Safety Division within the Safety and Graphics business segment; however, a sales district within the Industrial business segment provides the contact for sales of the product to particular customers. In this example, the non-primary selling segment (Industrial) would also receive credit for the associated net sales initiated through its sales district and the related approximate operating income. The assigned operating income related to dual credit activity may differ from operating income that would result from actual costs associated with such sales. The offset to the dual credit business segment reporting is reflected as a reconciling item entitled “Elimination of Dual Credit,” such that sales and operating income in total are unchanged.

NOTE 18. Geographic Areas

Geographic area information is used by the Company as a secondary performance measure to manage its businesses. Export sales and certain income and expense items are generally reported within the geographic area where the final sales to 3M customers are made.

(Millions)	Net Sales			Property, Plant and Equipment - net	
	2017	2016	2015	2017	2016
United States	\$ 12,372	\$ 12,188	\$ 12,049	\$ 4,891	\$ 4,914
Asia Pacific	9,809	8,847	9,041	1,672	1,573
Europe, Middle East and Africa	6,456	6,163	6,228	1,798	1,512
Latin America and Canada	3,033	2,901	2,982	505	517
Other Unallocated	(13)	10	(26)	—	—
Total Company	\$ 31,657	\$ 30,109	\$ 30,274	\$ 8,866	\$ 8,516

Asia Pacific included China/Hong Kong net sales to customers of \$3.255 billion, \$2.799 billion and \$2.945 billion in 2017, 2016, and 2015, respectively. China/Hong Kong net property, plant and equipment (PP&E) was \$541 million and \$520 million at December 31, 2017 and 2016, respectively.

NOTE 19. Quarterly Data (Unaudited)

(Millions, except per-share amounts) 2017	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Year 2017
Net sales	\$ 7,685	\$ 7,810	\$ 8,172	\$ 7,990	\$ 31,657
Cost of sales	3,882	4,020	4,059	4,094	16,055
Net income including noncontrolling interest	1,326	1,585	1,433	525	4,869
Net income attributable to 3M	1,323	1,583	1,429	523	4,858
Earnings per share attributable to 3M common shareholders - basic	2.21	2.65	2.39	0.88	8.13
Earnings per share attributable to 3M common shareholders - diluted	2.16	2.58	2.33	0.85	7.93

(Millions, except per-share amounts) 2016	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Year 2016
Net sales	\$ 7,409	\$ 7,662	\$ 7,709	\$ 7,329	\$ 30,109
Cost of sales	3,698	3,817	3,867	3,736	15,118
Net income including noncontrolling interest	1,278	1,293	1,331	1,156	5,058
Net income attributable to 3M	1,275	1,291	1,329	1,155	5,050
Earnings per share attributable to 3M common shareholders - basic	2.10	2.13	2.20	1.93	8.35
Earnings per share attributable to 3M common shareholders - diluted	2.05	2.08	2.15	1.88	8.16

Gross profit is calculated as net sales minus cost of sales. Fourth quarter and year 2017 were impacted by the enactment of the Tax Cuts and Jobs Act in December 2017, which reduced net income by \$762 million and reduced diluted earnings per share by \$1.25 in the fourth quarter and \$1.24 for year 2017. Refer to Note 9 for additional details.

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

None.

Item 9A. Controls and Procedures.

a. The Company carried out an evaluation, under the supervision and with the participation of its management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's "disclosure controls and procedures" (as defined in the Exchange Act Rule 13a-15(e)) as of the end of the period covered by this report. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective.

b. The Company's management is responsible for establishing and maintaining an adequate system of internal control over financial reporting, as defined in the Exchange Act Rule 13a-15(f). Management conducted an assessment of the Company's internal control over financial reporting based on the framework established by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control — Integrated Framework (2013)*. Based on the assessment, management concluded that, as of December 31, 2017, the Company's internal control over financial reporting is effective. Management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2017 excluded Scott Safety, which was acquired by the Company in October 2017 in a purchase business combination. Scott Safety is a wholly-owned subsidiary whose total assets and total net sales represented less than 1 percent of the Company's consolidated financial statement amounts as of and for the year ended December 31, 2017. Companies are allowed to exclude acquisitions from their assessment of internal control over financial reporting during the first year of acquisition while integrating the acquired company under guidelines established by the Securities and Exchange Commission. The Company's internal control over financial reporting as of December 31, 2017 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2017.

c. There was no change in the Company's internal control over financial reporting that occurred during the Company's most recently completed fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

The Company is implementing an enterprise resource planning (“ERP”) system on a worldwide basis, which is expected to improve the efficiency of certain financial and related transaction processes. The gradual implementation is expected to occur in phases over the next several years. The implementation of a worldwide ERP system will likely affect the processes that constitute our internal control over financial reporting and will require testing for effectiveness.

The Company completed implementation with respect to elements of certain processes/sub-processes in limited subsidiaries/locations and will continue to roll-out the ERP system over the next several years. As with any new information technology application we implement, this application, along with the internal controls over financial reporting included in this process, was appropriately considered within the testing for effectiveness with respect to the implementation in these instances. We concluded, as part of our evaluation described in the above paragraphs, that the implementation of ERP in these circumstances has not materially affected our internal control over financial reporting.

Item 9B. Other Information.

None.

PART IV

Item 16. Form 10-K Summary (updated by this Current Report on Form 8-K).

A Form 10-K summary (updated by this Current Report on Form 8-K) is provided at the beginning of this document, with hyperlinked cross-references. This allows users to easily locate the corresponding items in Form 10-K, where the disclosure is fully presented. The summary does not include certain Part III information that is incorporated by reference from the proxy statement.